

U. S. ARMY
BASE HOSPITAL
No. 31, A. E. F.

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PUBLIC HEALTH SERVICE

To
General M. W. Ireland
Surgeon General U.S.A.
Our Chief Surgeon, A.E.F.

from Base Hospital No. 31 -
With grateful appreciation
of your interest and support.

Frederic H. Clark M.D.
former Director, B.H. No 31
and Lt. Col. M.C. U.S.A.

Youngstown
Sept 10. 1920.

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United States Army Base Hospital
Number Thirty-one
American Expeditionary Forces

In Memoriam

**To the sacred memory of these,
the honored dead, of our number,
who gave their all in the discharge
of their duty of love, this book is
dedicated:**

Nurse Dorothy B. Millman

Sergeant 1st Cl. Carl S. Turner

Sergeant Reginald V. Taylor

Sergeant Frank M. Pickens

Private Harold B. VanNorden

Official History
U. S. A. Base Hospital No. 31
of Youngstown, Ohio
and
Hospital Unit "G"
of Syracuse University



Edited and compiled under the direction of
Major John L. Washburn, Commanding Officer,
by
Charles Hirsh Kaletski

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NOTE: This book is published for the personnel of U. S. A Base Hospital No. 31 and their friends, and is not for public sale.

FOREWORD

"The Official History of U. S. A. Base Hospital No. 31" was prepared originally to meet the requirements of the Office of the Chief Surgeon, American Expeditionary Forces. It is the story of what the Hospital accomplished and how, compiled for the official records of the War Department. In its present form the History embodies all the information contained in that report, together with some additional material compiled after the unit was demobilized in the United States. Its publication has been undertaken, merely, to preserve for our future recollection some of the details which marked our work in Contrexeville, Vosges, France; our life in training and our journeys as soldiers.

The facts and figures are those available when the chronological review was made, during the last few months of the hospital's existence. Sources of information at that time were limited and it was only with great difficulty that data pertaining to the earlier history of the unit was procured. Heads of departments were generous in their co-operation, as evidenced by the carefully prepared reviews of the various branches of the hospital's work. The editor is indebted to Dr. Earl V. Sweet for the many splendid photographs loaned by him for use in this volume. Other contributors, especially M. E. Kaletzki, have helped make this book truly representative of our army careers. The Editor takes this opportunity to thank J. F. M. for his conscientious effort during the compilation of this work.

The Editor.



THE PICTURES

Upper left: The Colonnade, Spring House, and portion of the park, with Hotel Etablissement at the left.

Upper right: The English Church and Red Cross Hut.

Middle: Panorama of the Contrexeville valley from the south.

Left center: Entrance to Building No. 4, Hotel Continental.

Right center: Hotel Harmand and a picturesque street.

Lower left: Building No. 2, Hotel Souveraine, from the park.

Lower right: Building No. 5, Hotel Martin Aine.

CONTENTS

Part One

Title	Page
Organization	19
Training	26
Preparation	32
Operation	46
Homeward Bound	84

Part Two

Contrexeville	117
Administration	121
The Medical Service	123
Major Charles C. Wolferth, M. C., U. S. A.	
The Surgical Service	143
Major A. E. Brant, M. C., U. S. A.	
Review of Specialty Service	156
Major John L. Washburn, M. C., U. S. A.	
Laboratory	158
Capt. David M. Farley, M. C., U. S. A.	
The Dental Service	163
Capt. Walter H. McCreary, D. C., U. S. A.	
The X-Ray Laboratory	165
Capt. Orrin D. Hudnutt, M. C., U. S. A.	
The Registrar	170
Lt. Frederick H. Button, S. C., U. S. A.	
The Drug Room	173
Capt. William H. Bunn, M. C., U. S. A.	
Genito-Urinary Statistics	175
Capt. David B. Phillips, M. C., U. S. A.	
History of Ward "X"	177
Capt. Davis Spangler, M. C., U. S. A.	
The Army Nurse	184
In Line of Duty	189
Salvage	192
The Detachment	195
Capt. Harry M. Raub, S. C., U. S. A.	
The Quartermaster	198
Lt. Richard M. Smith, Q. M. C., U. S. A.	

Title	Page
Review of Chaplain's Activities	201
Rev. William Carson Press, M. A.	
The Provost	204
Feeding a Base Hospital	205
Capt. Harry M. Raub, S. C., U. S. A.	
Personnel Activities	209
The American Red Cross	213
Characters	219
Among the French	229
Capt. William H. Bunn, M. C., U. S. A.	
Military Surgery at the Front	231
Lt. Col. E. E. S. Van Duyn, M. C., U. S. A.	
The French Surgeon	239
Capt. Colin McF. Reed, M. C., U. S. A.	
Resuscitation	244
Capt. Earl V. Sweet, M. C., U. S. A.	
Emergency Anesthesia	249
Capt. Colin McF. Reed, M. C., U. S. A.	
Roster	253

Part One

A chronological review of the official events in the history of U. S. A. Base Hospital No. 31, together with a resumé of occurrences before the opening and after the closing of the hospital.

ORGANIZATION

Many months before the United States entered the World War, leading Youngstown, Ohio, philanthropists and humanitarians interested themselves in a project to organize and place in the field a medical unit for the use of the Allied governments. As early as January, 1917, plans were developing for an ambulance or first aid unit, of whatever nature would best meet the requirements of the government to which it was to be offered.

When, early in February the American Red Cross sent forth its first great call to the men and women of America, for their co-operation in Red Cross war work, all the energy and planning that had been devoted to what had been rather a vague something, were concentrated on the American Red Cross. Soon after this initial call, Dr. George W. Crile of Lakeside Hospital, Cleveland, Ohio, suggested to the American Red Cross that base hospitals be organized in the larger American cities, for service overseas.

In accordance with that plan the Youngstown Hospital Association, in conjunction with St. Elizabeth's Hospital, Youngstown, requested of the American Red Cross permission to organize such a hospital. Preliminary correspondence, during February, started the philanthropic agencies of the city of Youngstown on a set program, their planning taking specific form on March 7, when Dr. Warner of the Lakeside Hospital addressed representative citizens at a large banquet. Dr. Warner, who had been associated with Dr. Crile, spoke of the pressing need of medical formations and outlined the course necessary to bring to Youngstown the glory to be derived from being among the first in the field.

Official sanction of the proposed formation of a base hospital was received from the office of Col. Jefferson R. Keene, Director General, American Red Cross, on March 25. Dr. Colin R. Clark was designated as director, with instructions to organize a staff of medical officers, nurses and enlisted men, all of whom were to be enrolled preparatory to official military enlistment. On the following day official notification of acceptance of the Red Cross program was sent forward and the work of creating an American Red Cross Base Hospital began, with the following finance committee in charge of plans for the \$50,000 subscription fund required by the Red Cross program:

J. A. Campbell, chairman; H. H. Stambaugh, H. L. Round, Philip Schaff, Clarence Strouss, C. H. Kennedy, Wells L. Griswold, A. E. Adams, Henry Garlick, M. I. Arms, Dr. W. H. Buechner, J. Fernley Bonnell, Richard Garlick and Hugh Grant.

Official History, U. S. A. Base Hospital, Number Thirty-one

George L. Fordyce and Fred S. Bunn, superintendent of the Youngstown City Hospital, immediately started the purchase of equipment suggested by the government authorities, taking advantage of every opportunity to get for the Youngstown Base Hospital equipment which was sure to be scarce when the country at large took up the organization of similar institutions. The specifications were for a 500 bed hospital and all purchases were on a liberal allowance for that capacity.

Only a few days were required for the subscription of more than the prescribed \$50,000, the finance committee making a thorough canvass of the entire city, more than 300 persons and firms contributing. A large share of the total was realized in a single evening when many of the wealthiest men of the city gathered informally and agreed upon their respective share of the total. A complete list of subscribers follows:

M. I. Arms, Mrs. G. D. Wick, Estate Myron C. Wick, W. J. Hitchcock, Frank Hitchcock, George L. Fordyce Co., The Ohio Leather Co., W. H. Foster, R. D. Gibson, John C. Wick, J. Warner, Emily W. Bonnell, Caroline Bonnell, J. F. Bonnell, W. J. Sampson, Mason Wick, L. L. Liebman, J. D. Rees, Mr. and Mrs. W. S. Bonnell, W. M. Andrews, Horace Williamson, John Tod, Ohio Iron and Steel Co., Youngstown Sheet and Tube Co., Youngstown Iron and Steel Co., Robert Bentley, J. A. Campbell, Brier Hill Steel Co., C. H. Booth, John and Grace Harrington, E. L. Ford, H. M. Garlick, Trussed Concrete Steel Co., Carbon Limestone Co., A. M. Clark, Struthers Furnace Co., H. H. Stambaugh, John Stambaugh, The W. B. Pollock Co., Porter Pollock, General Fireproofing Co., C. D. Hine, George E. Day, George Stambaugh, G. F. Arrel, Mrs. G. F. Arrel, East Ohio Gas Co., Edmond L. Brown, W. J. Roberts, R. E. Cornelius, J. R. Rowland, George E. Dudley, L. T. Peterson, W. A. Beecher, T. L. Robinson, Robert McCurdy Co., W. B. McKelvey, Bessemer Limestone Co., David Tod Arrel, H. M. Hurd, W. B. Topping, R. Jones, Jr., G. F. Allerdyce, F. B. Medbury, Thomas McDonald, Phillip Schaff, W. B. Hall, Realty Trust Co., Mr. and Mrs. W. P. Arms.

Julius Kahn, Youngstown Ice Co., A. P. Smith, Paul Jones, Vindicator, W. F. Maag, Sr., Lloyd Booth, J. W. Ford, Renner Brewery, Fred Tod, R. P. Stevens, Strouss Hirschberg Co., Mahoning Buick Co., Ritter and Meyer, Bert H. Printz, Frankel Bros. Co., Hartzell Bros. Co., Block Gas Mantle Co., R. C. Steese, Banner Electric Co., A. E. Reinman, J. G. Butler, Jr., G. M. McKelvey Co., L. B. McKelvey, Rose Johnson Co., Heller Bros., Henry Butler, C. H. Kennedy, Leah M. McKelvey, H. W. Heedy, E. L. McKelvey, Mr. and Mrs. J. O. Pew, C. Thornton, G. F. Danielson, David Tod, Crystal Ice & Storage Co.

C. A. Cochran, Falcon Bronze Co., Mason Evans, Union Wholesale Lumber Co., American Sintering Co., Republic Iron & Steel Co., T. J. Bray, G. E. Rose, H. L. Round, The Telegram Co., S. G. McClure, J. W. Dietrick,

Official History, U. S. A. Base Hospital, Number Thirty-one

Youngstown Securities Co., J. H. McEwen, Estate Thomas H. Wells, C. S. Robinson, W. E. Manning, W. E. Watson, A. H. Dillon, W. A. Thomas, E. E. Leedy, C. H. Krauter, United Eng. & Foundry Co.

W. C. Reilly, H. W. Grant, Charles Deibel, J. P. Colleran, The Gillen-McVean Co., The John Gallagher Co., Ernest Salow, B. M. McManus Co., The Lytle-Wentz Co., Stambaugh-Thompson Co., P. J. Thompson, R. R. Sharmon, M. E. Dennison, R. P. Hartshorn, C. N. Crandall, Arabelle Crandall.

A. E. Adams, C. J. Wick, Akron Soap Co., D. A. Allen, M. I. Arms 2nd, J. C. Barrett, The Barrett Co., W. R. Beard, J. M. Bennington, J. J. Beck, C. J. Bloom, G. A. Blaine, J. H. Bloom, Annie Arms Bonnell, H. J. Braman, Ernich Brown, Ella Brown, Mrs. C. E. Felton, R. D. Brown, H. L. Burnham, W. C. Carman, O. U. Cassaday, Bruce R. Campbell, The Central Store Co., N. H. Chaney, Stewart C. Coey, J. J. Conner, T. E. Connell, Dr. Ida Clarke, M. S. Curtis, M. E. Coombs, C. W. Deibel, E. J. Deibel, David Davis, V. W. DeLaney, T. P. Draper, L. W. Edwards, Helen F. Elsaesser, C. A. Ensign, J. C. Ewing, R. W. Ewalt, C. H. Elliott, W. F. Fair, N. B. Folsom, R. W. Forcier, D. J. Geary, W. T. Gibson, T. C. Gilchrist, P. J. Gordon, A. C. Graham, Guthman & Cantwell, J. P. Hazlett, F. A. Hartenstein, G. H. Heedy, W. M. Henderson, J. N. Higley, W. C. Holzworth, Eleanor Heedy, W. T. James, T. A. Jacobs, Jeckell Bros.

F. D. Jones, J. B. Kennedy, T. H. Kane, W. L. Kauffman, Gustave Kahn, F. B. King, Charles Koonce, Jr., W. T. Lawthers, F. T. Lawrence, Lief Lee, W. R. Leonard, C. J. Little, M. R. Lightbody, S. W. Luce, Lyons Laeri Co., Mahoning Foundry Co., J. S. Mitchell, H. R. Moore, W. J. Morris, W. E. Mueb, E. G. Murray, L. A. Manchester, C. W. M. McClure, J. K. McAleer, E. T. McCleary, W. C. McKain, J. J. McNally, J. N. Nutt, John Oliver, Ozersky Bros. Baking Co., Harry Parrock, Thomas Parrock, Fayette Powers, Powers & Schroder, Miss Timp Pollock, Pollock Dougherty Co., J. B. Roberts, G. A. Reinhart, C. J. Reese, J. M. Shaw, L. B. Scheible & Son, C. F. Semple, W. A. Smith, D. B. Stephens, Alexander Stephens, E. A. Stanley, Thomas Strain, G. M. Streeter, H. W. Stevens, C. E. Simon-ton, C. E. Shriver, E. H. Turner, Mrs. Henry Tod, W. J. Thompson, J. W. Truedley, L. H. Underwood, J. Van Baalen, W. W. Wallace, C. F. Walker, J. W. Wagstaff, C. V. Walter, L. T. Wick, Wilkins Leonard Co., W. C. Whitten, D. E. E. Woodside.

J. R. Wooley, Yahrling Rayner Co., Youngstown Arc Engraving Co., Youngstown Foundry & Machine Co., C. E. Evans, Fisher Gilder Cartage Co., J. H. Good, Guttridge & Rand, Hearn Fithian Co., Kennedy Boyle Co., H. W. Kerr, M. F. Menster, F. H. Nullmeyer, J. L. Roemer, Standard Slag Co., J. W. Woltz, W. G. Wilson, J. H. Edwards, Paul Healey, J. R. Thomas' Sons, Chelekis Bros., Beil & Evans Co., Carnegie Steel Co., W. C. Gans, C. B. Folsom, J. H. Grose, A. E. Jupp, Jos. Joseph & Bros. Co., H. C.

Official History, U. S. A. Base Hospital, Number Thirty-one

Knowles, W. N. Neckerman, J. E. Perry, J. E. Rudge, C. S. Short, G. S. Wilkerson, W. M. Rowney, Charles Cushwa, M. H. Eckert, Harry Levinson, William Wilson, W. R. Stewart, Ohio Automatic Sprinkler Co.

Subsequent activities, including organization, training, and operation, follow in chronological order.

April 9: Miss Frances Kehoe, assistant supervisor of nurses, Youngstown Hospital, was selected as Chief Nurse with instructions to proceed with the enlistment of the Nurse Corps to the required number.

April 14: The following physicians and surgeons, having stated their preference for overseas service, made formal application for commission in the Officers' Reserve Corps, through the American Red Cross:

Majors: Dr. Colin R. Clark, as director and chief of medical service; Dr. James A. Sherbondy, as assistant director and chief of surgical service; Dr. Burt W. Wilson, as assistant medical director.

Captains: Dr. Charles C. Wolforth, director and chief of laboratories; Dr. Sidney M. McCurdy, registrar; Dr. John Heberding, roentgenologist; Dr. Maurice P. Jones, assistant surgical service; Dr. John L. Washburn, ophthalmologist; Dr. Frederick J. Bierkamp, rhinologist and laryngologist; Dr. Ralph R. Morrall, orthopedist; Dr. A. E. Brant, urologist and staff surgeon.

Lieutenants: Dr. John V. Buchanan, Dr. Edward H. Jones; Dr. Dean A. Nesbitt, Dr. Clarence D. Barrett, Dr. Ray W. Fenton, Dr. William H. Bunn, Dr. William Kerr Allsop, Dr. Colin McF. Reed, Dr. Everett R. Thomas, Dr. Charles H. Moses and Dr. Parker G. Borden. Dr. Robert W. Morgan and Dr. Walter H. McCreary made application for commission in Dental Corps.

May 2: Rev. William Carson Press, M. A., for ten years pastor of the Evergreen Presbyterian Church, Youngstown, was reported as American Red Cross Volunteer Chaplain.

May 13: Under instructions from American Red Cross Headquarters, Washington, D. C., applicants for commission went to Cleveland, Ohio, for physical examination by Major Bunts, U. S. A. Dr. John Heberding and Dr. Edward H. Jones failed to appear for examination. Their places were filled by Dr. Orrin D. Hudnutt as roentgenologist and Dr. David B. Phillips. Dr. R. W. Morgan was rejected because of physical disability, on account of eyesight, and Dr. Forrest W. Ward was substituted as applicant for commission in Dental Reserve Corps.

May 20: The following men, having been previously enrolled, were enlisted as members of the Medical Enlisted Reserve Corps, with instructions to await call to active service:

Official History, U. S. A. Base Hospital, Number Thirty-one

Alban A. Ahn, Frederick B. Artz, Harry W. Baird, Joseph D. Baker, Emil A. Barnes, John J. Barth, Abraham D. Beam, Claude E. Beaumont, Hazen L. Becker, Daniel H. Bodin, John Bovill, Jr., Frank J. Burt, Clarence W. Carlson, Joseph Chambers, Walter A. Church, Harold M. Cornelius, Benjamin H. Cover, Hugh C. Cover, Paul G. Cover, Austin C. Cullinan, James W. Davis, Thomas B. Davis, Paul A. DeGarmo, Cyril P. Deibel, Alphonso A. DeWaldo, Clair V. Dobson, Harold B. Ellis, George F. Eppley, Abdon Farran, Floyd A. Faulds, Roy D. Fenton, Ralph W. Fieger, Milton L. Flack, Harry A. Ford, Allan R. Forsyth, Rex L. Fortney, Merrill R. Fox, Albert R. Fraser, John M. Fraser, Harold Funkhouser, Harry S. Gaskeen, George P. Gee, Arthur E. Genuske, Lester O. Gibson, Lloyd H. Gleason, Frederick L. Gorman, William M. Gribble, Dan F. Griffin.

Edson L. Hart, Edward C. Hasenplug, Joseph L. Heffernan, Carl Helander, John A. Hickman, Samuel J. Holt, Walter A. Holtzman, Richard S. Hunter, Paul I. Hynes, David J. Irwin, Arthur John, Raymond Johnston, Frank H. Judson, Jr., Raymond J. Kane, Ralph L. Kelly, William M. Kohl-morgan, George N. Latimer, Matthew C. Leskawa, Fred C. Lewis, Eugene M. Liddle, William H. Ludt, Jr., Roy O. Lytle, Paul V. Manning, William T. Manning, William P. McBride, John M. McCaughey, Robert E. McCluskey, Robert McCreery, Charles M. McGlynn, Ben McKeever, Frank H. McKelvey, Randall M. McNabb, Harry R. McPhee, Frank H. McWhirter, Walter L. Meuser, Paul Meyer, Lloyd Miller, George A. Millman, Archie D. Minamy, Lloyd A. Mines, Frank E. Moore, Harry J. Moreman, Charles D. Morgan, Jeremiah F. Morris, Claude H. Morrow, Alvin Newman, Philip E. Oldaker, Lee J. Pelen, Frank M. Pickens, Wallace H. Pifer, Merton V. Porter, Walter S. Prichard, Allen E. Pritchard, John E. Ramsey, Paul Raymond, Thomas H. Rees, Finley F. Reid, Waldo E. Ripple, Joseph W. Robb, William J. Rupp, Winfield L. Sample, Donald L. Shaw, Raymond T. Schottenberg, Martin J. Slattery, Alvin L. Smith, James P. Snead, Gust N. Spong, William E. Stewart, Arthur M. Stone, Arthur C. Thomas, Ray L. Thomas, John M. Thornton, Carl S. Turner, Lawrence N. Turner, Paul H. Velker, Charles M. Wall, Ralph K. Wallace, Robert A. Walton, Charles B. Wakefield, William M. Watt, Sheridan L. Weaver, Cecil W. Whitworth, John E. Wirt, Auren D. Williams.

May 30: Capt. Sidney McCurdy was ordered to Fort Benjamin Harrison for training at Medical Reserve Officers' Training Camp.

June 26: The following enlisted men were sworn in as privates M. E. R. C.: Clifford Ainge, Alfred T. Button, Lamont H. Button, Frederick H. Button, Robert E. Jones, Frances M. Kirwin, Bertram Lustig, George L. More, Walter A. Onorato, Joseph E. Seifert, Harrison T. Sexton, Reginald V. Taylor, Carl Van Orman, George H. Watson and Eldon D. Williams. Arthur M. Devey had been sworn in earlier.

July 24: Major Colin R. Clark was ordered to Fort Benjamin Harrison for training in Medical Reserve Corps.

Official History, U. S. A. Base Hospital, Number Thirty-one

August 6: Capt. E. C. Kaefer, Q. M. C., U. S. R., unit quartermaster, arrived to assume charge of packing and shipping all property.

August 8: Youngstown Hospital made its first public appearance in parade formation, the occasion being the farewell gathering to Companies A and B of the 10th Ohio Regiment. The parade proceeded through Front, Federal, Wick and Indiana streets to Wick Park. Nurses, in charge of Miss Frances Kehoe, Chief Nurse, were assembled for the first time. The Unit band made its premiere.

August 14: Capt. A. E. Brant was ordered to Rockefeller Institute, New York City, for laboratory training.

August 15: Lt. Parker G. Borden, ordered to Fort Benjamin, began military training.

August 25: Lt. David B. Phillips was ordered to Fort Benjamin Harrison and Lt. Orrin D. Hudnutt was ordered to Cornell University X-Ray school, for training.

August 28: Harry M. Raub and Harry Stratigas were enlisted as privates M. E. R. C. Raymond J. Farber was reported as private M. E. R. C.

August 29: Major Colin R. Clark returned from course of training for medical officers at Fort Benjamin Harrison.

The entire unit was assembled to attend the unit picnic at "Idora Park," Youngstown, held under the auspices of the enlisted men to raise funds to buy band instruments. Thousands of persons gathered during the day and evening, a considerable fund being realized.

August 30: Capt. Adam E. Schlanser, Medical Corps, U. S. A., arrived to take command of U. S. Army Base Hospital No. 31, that being the new official Army designation. Captain Schlanser had been stationed at Columbus Barracks a number of years.

Sept. 4: Capt. Adam E. Schlanser received notification of promotion to the rank of Major, M. C., U. S. A.

Sept. 6: All officers notified to report for active duty to Major A. E. Schlanser at 9 o'clock, A. M., at City Hospital, were given instructions as to baggage and personal necessities for overseas service. All officers were ordered to report at the same hour each succeeding morning. Capt. Sidney McCurdy and Lts. Borden and Phillips returned from an abbreviated course at Officers' Training Camp, Fort Benjamin Harrison.

Sept. 7: The entire personnel mobilized at medical room of Mahoning Medical Society, City Library, for roll call. Capt. A. E. Brant returned from New York City, where he had been in training at Rockefeller Institute. Capt. Charles C. Wolferth joined the organization from Philadelphia, Pa. Lt. Orrin D. Hudnutt joined. John M. Cavanaugh, Samuel B. McClellan and Walter Winfield were enlisted as privates, M. E. R. C.

Official History, U. S. A. Base Hospital, Number Thirty-one

Sept. 8: U. S. Army Base Hospital No. 31 entrained for Allentown, Pa., to undergo training preliminary to service overseas. The departure from Youngstown was marked by patriotic displays of utmost enthusiasm and splendor, the entire city turning out to do honor to the one organization that was purely its own. The personnel had gathered in the morning for instructions as to baggage and to hear the Articles of War read by Capt. Sidney McCurdy. They met again at four o'clock P. M. to receive the gifts of the American Red Cross and the W. C. T. U. Headed by the Regimental Band of the 10th Ohio Infantry the personnel marched from the City Library to the Erie Railroad station. Three companies of infantry formed the guard of honor through the streets crowded with cheering thousands.

The departure from Youngstown marked the end of the first stage in the history of Base Hospital No. 31. Organized originally as a Red Cross institution, it soon became a regular Army Base Hospital, under the direct supervision of army authorities. The American Red Cross having directed its organization, financing and equipment had completed its work and turned over to the War Department, as one of the first of its fifty base hospitals ready for overseas duty, the Youngstown unit.

Although the work of creating a base hospital was done under the direct supervision of headquarters of the American Red Cross in Washington, D. C., too much credit cannot be given the local chapter, viz., The Mahoning chapter. By its indorsement of the original plans and its close co-operation in raising funds, Mahoning Chapter rendered a great service. But more than the mere giving of dollars; more than simple speechmaking; beyond the valuable work of soliciting subscriptions—all of this was important and well done—was the tremendous good done by the hundreds of women of Mahoning Chapter, who, by the labor of their hands produced thousands of pieces, each and every one of which was destined to make for the comfort of some soldier lying ill or wounded in Base Hospital No. 31 in France.

The chapter furnished 94,499 surgical dressings, 27,969 pieces of hospital linen, including sheets, pillow cases, pajamas, operating and hospital gowns and personal linens—all to be shipped overseas for Base Hospital No. 31.

TRAINING

Sept. 9, 1917: U. S. Army Base Hospital No. 31, Major A. E. Schlanser, M. C., U. S. A., commanding, entered upon its training career at medical corps training camp, Allentown, Pa., immediately upon its arrival from Youngstown, O. The full quota of enlisted men and officers reported for duty upon arrival, with the exception of such officers as were on detached service or not yet returned from training camps. The first day's activity consisted chiefly of unpacking and preparing barracks.

Sept. 11: Rookies, in every sense of the term, the enlisted men lined up for the first drill in the company street, officers and men participating in a lengthy fundamental drill and calisthenics.

The nurse detachment left Youngstown at 8 o'clock for New York City, there to await embarkation orders. The detachment included sixty-four nurses, under direction of Miss Frances Kehoe. Earlier in the day they were administered the oath at the McMillan Library. The "send-off" at the Erie Station rivalled the display of the previous Saturday when the enlisted men left for Allentown.

The detachment included: Frances M. Kehoe, Chief Nurse; Martha W. Anderson, Mrs. M. P. Jones, Catherine B. Bonner, Hazel F. Bryan, Ella B. Brown, Winifred R. Bullock, Winifred C. Campbell, Edith M. Caldwell, Catherine E. Cassidy, Delia Conricote, Florence A. Dark, Edith M. Dewitte, Olive M. Dunn, Harriet J. Eckels, Esther N. Erickson, Marguerite Findlay, Lelia M. Gettles, Ella Mae Gilchrist, Minnie H. Gray, Grace E. Harris, Edith L. Hadsall, Margaret E. Herr, Sarah J. Hunter, Lena M. Hurd, Hattie M. Hyland, Lyda J. Hyland, Alma A. Jones, Anna O. Jones, Margaret K. Keegan, Helen G. Larkworthy, Blanche A. Lewis, Mary F. McClenahan, Grace M. Merrill, Minna T. Meyer, Dorothy B. Millman, Mary D. Mitchell, Esile G. Mohler, Mary M. Murphy, Gladys C. Nonemaker, Nell F. Notestine, Ellen F. O'Brien, Leona R. Osborne, Lorene M. Phillips, Mrs. Burbank, Olive N. Reed, Eleanor Reid, Anna M. Roberts, Agnes A. Sharkey, Mary L. Shea, Grace R. Singer, Rachel Smith, Martha R. Stirling, Margaret C. Stoffel, Ruth Butler, Viva I. Thompson, Adelaide M. Vanderholt, Anna Vaughan, Clara A. Wack, Marie Watson, Ora M. Welshons, Gladys H. Wiesen, Pearl M. Worley, and Hazel Knauf.

Sept. 15: Capt. Maurice P. Jones and Lt. J. U. Buchanan were ordered to the Neurological School, University of Pennsylvania, Philadel-

Official History, U. S. A. Base Hospital, Number Thirty-one

phia, for a course of special instruction. The first inspection of officers' quarters and enlisted men's barracks proved entirely successful.

Sept. 17: Capt. R. R. Morrall was ordered to Washington, D. C., to report for temporary duty with the Orthopedic section.

Sept. 19: Miss Ella Louise Wick, and Miss Frances Boyd, civilian employes, and Miss Jeanette Martner, dietician, reported for duty at Allentown and were ordered to proceed to Ellis Island to join nurses already stationed at that place.

Sept. 24: Capt. Charles C. Wolferth was ordered to report at Camp Wheeler, Ga., for temporary duty as cardio-vascular examiner.

Sept. 27: Capt A. E. Brant, of the Surgical staff, addressed members of the Allentown Medical Academy on the Carrell-Dakin treatment of infections.

Oct. 1: French classes for officers and men with a fixed schedule, were inaugurated. Officers were under tutelage of Pvt. Joseph L. Heffernan, the enlisted men being taught by Pvts. Frederick B. Artz and Abdon Farran.

Oct. 4: Major Burt W. Wilson was relieved from duty with Base Hospital No. 31 because of illness.

Oct. 15: During an immense demonstration for the Second Liberty Loan, Base Hospital No. 31 subscribed \$16,250, nearly all the enlisted men and officers buying at least one \$50 bond. The entire camp subscribed \$203,950. The entire camp participated in the parade during the evening.

Oct. 25: Base Hospital No. 31 participated in a general review of all troops in training at Allentown by General Vengel, French Army.

Oct. 29: Lt. Orrin D. Hudnutt was ordered to report to Cornell University X-Ray school for course of instruction.

Nov. 20: Entire command made a practice pack of baggage, anticipating orders to move.

Nov. 21: Base Hospital No. 31 broke camp at Allentown under orders to proceed to concentration and embarkation camp by way of Jersey City, leaving via Philadelphia and Reading railroad. During the seventy-two days spent in training a personnel totally unfamiliar with things military became thoroughly acclimated. Consistent and thorough drilling produced exceptional work in the ranks, and lectures prepared a foundation for the practical work to be done overseas. Members of the staff, also, were subjected to rigorous drills designed to better prepare them for the work that was before the unit with the fighting forces. In addition to their military activities members of the staff associated frequently with medical interests in the camp and city.

Official History, U. S. A. Base Hospital, Number Thirty-one

Nov. 22: Arriving in Jersey City at 4 o'clock A. M. the detachment cleared its train at 6 o'clock A. M., took a ferry boat to Pennsylvania Station and then went by railroad to Camp Mills, Long Island. The situation found there was very trying. Rain had made the camp site a sea of mud. Tents had not been procured and the site was not definitely planned. A full day's work produced the necessary tents before night. The first mess could not be served until 4:30 o'clock P. M., when the men had their first meal with units of the Forty-first Division.

Nov. 23: Camp was laid out and bell tents pitched. Camp guards were placed and the business of awaiting further orders commenced.

Nov. 27: Capt. C. C. Wolferth returned from detached service at Camp Wheeler, Ga.

Nov. 28: First full inspection of entire personnel under the new circumstances at Camp Mills was successful.

Nov. 30: Very hard rain which flooded the camp, together with wind, and a storm which blew down several tents marked the occasion of the first muster and inspection.

Dec. 6: William H. Williamson, Master Hospital Sergeant, U. S. A., reported to the Commanding Officer for duty with Base Hospital No. 31. He came to Camp Mills from Syracuse, N. Y., where he had been stationed as non-commissioned officer in charge of the Camp Hospital at the Syracuse concentration camp. Sergeant Williamson had seen continuous service since November 14, 1898, when, on first enlistment, he was assigned to the medical department. He served throughout the Spanish-American War, aiding in the fight against the yellow fever epidemic at Pinar del Rio and later at Quemados de Marainao. For two years he was pharmacist to the Evacuation Commission in Havana during the period of General Leonard Wood's governorship. Soon after returning to the United States in February, 1904, Williamson was sent to Pittsburgh as a member of a detachment to establish a hospital at Allegheny arsenal. He was made a sergeant at Pittsburgh. In 1907 and 1908 he was an instructor in pharmacy and materia medica in Washington, D. C., and subsequently had important assignments in various camps. He went to Mexico with General Pershing's expedition, spending eleven months of 1916 and 1917 in that country. He was assigned to Camp Syracuse from El Paso soon after the United States entered the war against Germany.

Dec. 8: The hardest storm seen on Long Island in many years blew down many tents and the entire camp became uninhabitable as a result of flood and frequent fires. Very nearly all other units had quit camp prior to this date.

Dec. 11: Unit undertook to manage its own mess for the first time since entering service. The kitchens of the 163rd and 164th Field Hospitals

Official History, U. S. A. Base Hospital, Number Thirty-one

were utilized for the purpose. Officers' mess was handled under the same arrangement.

Dec. 12: Confidential sailing orders having been received, all Class "B" baggage was shipped to a point of embarkation in charge of Capt. M. P. Jones.

Dec. 14: Awake at 1:30 o'clock A. M., the entire command prepared for the trip to the point of embarkation; prepared packs and baggage; messed at 2:45 o'clock and at 3:15 o'clock were ready to hike to the train. During the night, however, a severe storm had arisen. Beginning with snow, turning to rain and leading to a terrific wind, the weather conditions made inadvisable the contemplated departure. Water had risen beyond the level of the tent floors; the wind had torn up shelter in all parts of the camp, and fire had consumed the quarters of several squads. The gale became so violent that it was difficult to march against it, and the trip was delayed until 4:15 o'clock, it being expected that the wind, which had swept across Long Island incessantly for hours, would subside sufficiently to permit progress. Roads had become impassable in the dark hours and another delay until 7:45 o'clock was decided upon because the trucks could not be procured to haul baggage. The unit finally boarded the train at 9 o'clock, going to Long Island City, and from there by ferry to Hoboken, where the entire command boarded the *Leviathan*.

The detachment of nurses, which had been in training at Ellis Island, joined the command at Hoboken. The women had been in training at Ellis Island since September 30, when they were transferred from Columbia War Hospital No. 1 at Gunhill Road. Gunhill Road was the first destination of the nurses after they left Youngstown on September 12. During the stay at Ellis Island several changes were made in the personnel of the Nurse Corps. Four nurses had been disqualified because of marriage or ill health. Their places were taken by Miss Lily Anderson, Miss Alys M. Stryker, Miss Mary Powers and Miss Bertha M. Witt. Miss Frances Boyd, Miss Jeanette Martner and Miss Ella Louise Wick, civilian employes, were included in the detachment.

On board the *Leviathan* the officers were assigned to quarters on C, D, and E decks; nurses on D and E decks. Enlisted men were "bunked" on G deck.

Dec. 15: Drawn from her slip by the convoy of tugs, the *Leviathan* swung into New York Harbor at 7:30 A. M. The sea was calm and all indications were for a more comfortable journey than had been expected.

Dec. 19: Visions of submarines:—While the detachment of Base Hospital No. 31 was assembled in the mess hall for a lifeboat drill the concussion of a gun discharge shattered the mess hall windows and brought immediate thoughts of the enemy submarine being attacked by the vessel that once had flown their flag. After the first excitement subsided, it

Official History, U. S. A. Base Hospital, Number Thirty-one

became generally known that there had been a mere indulgence in target practice. A submarine had not been used as a target.

Dec. 22: That for which every American soldier and sailor sailing the seas was then seeking appeared with the break of dawn. Six darting little destroyers began their circling around the Leviathan in search of enemy submarines. During the afternoon others joined the flotilla that guarded the largest vessel carrying American troops, on its maiden voyage as an American transport.

Dec. 23: Land was sighted.

Dec. 24: The Leviathan slipped into port at Liverpool, England, with the tide, after having rested at anchor in the river through the night. Having been first to embark at Hoboken, Base Hospital No. 31 was the first to debark, going on land at 11:30 o'clock A. M., and, proceeding to the Liverpool station, started the trip to Southampton at 2 o'clock P. M. The nurses remained at Liverpool until the night train for Southampton. Arriving at Southampton at 10 o'clock at night, the officers and enlisted men marched to a "rest camp," arriving there at midnight. "Merry Christmas" was in the air before the camp was still.

Dec. 25: Christmas Day found the joy born of "being overseas" mingled with the sorrowing reflections on the "Christmas back home", as the officers and men spent a routine day in camp. The nurses had embarked for the trip across the channel soon after their arrival at Southampton, leaving the rest of the organization to spend the day between camp and city.

Dec. 26: The "Mona's Queen", previously in the cattle trade, carried the officers and men across the English channel. The trip was rough, many of the command becoming ill. Havre was reached at 11 o'clock P. M., and it was decided that all remain on board until morning.

Dec. 27: Debarking early in the morning the detachment marched to British Rest Camp No. 2, where the officers were quartered in huts, the men using barracks. The nurses were quartered at downtown hotels.

Dec. 30: After three days at Havre "Rest Camp" the entire command, including nurses, entrained at 5 o'clock A. M. for a destination known only to those in command. In prospect, the journey was to be of uncertain duration. For the officers and nurses first and second class cars were to be cold—for the enlisted men freight cars marked "40 Hommes 8 Chevaux" were to be a new experience—if nothing more.

Before the darkness of night made the thing impossible, one soldier made this notation in his diary under date of Dec. 30, '17: "Cold and clear. We got up at 3:00 A. M., packed our rolls and marched two miles to the station. It seemed much longer. Our visions of 'cattle cars' had not been exaggerated. We were divided into groups of thirty men each and as-

Official History, U. S. A. Base Hospital, Number Thirty-one

signed to our 'transportation.' Rode all day in misery and had hard tack, red horse and 'coffee'."

The day had been bitterly cold and the too scanty protection of a box car took its toll when Sgt. Robert E. Jones, ill with pneumonia, was taken from the train at the station Argenteuil. It had been decided he was too ill to withstand the exposure of the trip.

Dec. 31: The clear sky of the day before had clouded over and it was snowing when morning came. There had been no heat in the passenger cars and the straw sprinkled over the floor of the box cars held little warmth. The soldier's diary for this day holds this note:

"Cold and snowy. Spent a night such as only my dreams had anticipated; didn't have enough room to lie down and so sat up all night and dozed while I wasn't too busy thinking of keeping warm. Found a piece of tin along the tracks this morning, and we built a fire on it in the center of the car. I don't know what the fellows in the other cars did. It seemed as though they all came into our 'parlor car.' We all look like sons of an Ethiopian prince. The smoke is thick and sooty—but warm—and they say the place we are going to is a 'watering place'. Bought a canteen of beer at some station—don't know what they call it, but it looked French—that is, the station. The beer tasted anything but American. This is some trip—an experience we won't forget soon."

January 1, 1918: Contrexeville, hitherto unheard of, except by those who by some chance had seen an advertisement or label of "Contrexeville Water", was the destination reached at 11:30 o'clock, after fifty-six hours of the most strenuous travel.

Arrival at Contrexeville marked the end of the second epoch in the history of Base Hospital No. 31—its training for the work to be taken up at its new position. Camp Mills disagreeable as it was, prepared the men for the strenuous trip before them. That they withstood the journey with so little illness was doubtless due to the process of hardening undergone in the period of training. Sgt. Frank Pickens had acquired pneumonia on the journey, and on arrival was sent immediately to Base Hospital No. 36 at Vittel. Miss Mary McClenahan, A. N. C., was sent to the same hospital with measles.

Base Hospital No. 32, Indianapolis, Ind., already stationed at Contrexeville, had planned for the arrival of the new unit and served noon mess. The remainder of the day was spent in the preparation of quarters and the removal of the most visible marks of the long, dirty journey.

PREPARATION

January 2, 1918: Enlisted men having been quartered, temporarily, in structures which in peace times had served as a granary and drying room, officers housed in Hotel Souveraine and nurses in Hotel Cosmopolitan, the work of getting acquainted with the village of Contrexeville began after the first night's rest.

Contrexeville, celebrated throughout France for more than 100 years for its waters, is a more or less typical French town, a little more than 1,100 feet above sea level. Completely surrounded by hills, it is sheltered from high winds. Geographically, Contrexeville is on the railway which connects Nancy and Langres, 370 kilometers from Paris; five kilometers from a similar resort, Vittel, the home of Base Hospitals Nos. 36 and 23. Neufchateau is 29 kilometers to the north. Contrexeville became popular because of its Pavillon Spring, which was first brought under public notice in 1760 by Dr. Bagard, who had been physician to King Stanislas of Lorraine. Chemical analysis of its waters in 1864 brought to the attention of the French that the components of the water from Pavillon Spring were exceptional in their combination. Because of the great variety of minerals contained, medical men soon recommended courses of treatment at Contrexeville.

To care for the patronage of the hundreds of persons who came each summer from all parts of the world twelve large hotels were constructed, together with a number of smaller hostelries and innumerable villas, all of which catered to the trade of the "Buveurs".

Principal among these hotels were: La Souveraine, Cosmopolitain-Palace, de l'Etablissement, Royal, de la Providence, Continental, des Douze Apotres, Harmand, Martin Felix, de Paris, Martin Aine, de l'Europe, du Parc and Thierry et des Sources. Of this number all but des Douze Apotres, du Parc and de l'Europe were requisitioned by the French Government for the use of American hospitals. Of this number three were occupied temporarily by Base Hospital No. 32: the Continental for its kitchen and dining rooms; the Souveraine as barracks for the officers and the Cosmopolitain for the nurses and enlisted men's mess hall.

A natural geographic division grouped the twelve buildings designed for hospital service. A park almost in the very center of the village embraced four buildings, one of which was the Etablissement Minerales, a bath house operated by the Societe des Eaux. Directly opposite was

Official History, U. S. A. Base Hospital, Number Thirty-one

the Hotel de l'Etablissement. The Souveraine and the Casino were the other structures within the park. These buildings, with the Hotels Martin Felix, Thiery, Martin Aine, Continental and Harmand, formed the lower group. The upper group, situated on the other side of the park, comprised the Hotels Providence and annex, Paris, Royal and Cosmopolitain. The River Vair, in America hardly to be dignified by a name, passes through the center of the town, being covered by concrete construction for several hundred yards.

Before the arrival of Base Hospital No. 31, Base Hospital No. 32 being first on the scene, exercised its natural option and chose the four hotels in the upper segment of the town, leaving the others, with approximately the same bed capacity, to Base Hospital No. 31. The Hotel Continental, situated on the main street of the village, was the largest of the lower group, being a four-story structure faced with stucco. The lower floor was divided into what had been used as kitchen, dining rooms, grand salon and cafe. The upper floors were made up of rooms of the ordinary French hotel size, accommodating from three to five hospital beds. The building had an independent non-potable water supply. Plumbing facilities were good, in comparison with other French summer resort structures. An independent sewage system consisted of several septic tanks, the overflow from the tanks draining into the River Vair.

Hotel Martin Aine, on the same street, was a four-story building of brick and sandstone. Part of the lower floor had been retained by the owners for private use. The other part had been used as a dining room. A single corridor divided the rooms on the upper floors, the rooms being about the same size as those at the Continental. A three-story annex in the court contained several small rooms, not particularly desirable for hospital purposes. On the north side of the court a small structure housed the kitchen. Hotel Thiery, across the Esplanade, the smallest of the series of hotels, was a three-story building of sandstone. The main floor, as found, was divided into two parts by the corridor. On the north side was the hotel dining room, with an entrance to the kitchen in the small building at the rear. On the south side were several small stores. The upper floors had only a few spacious rooms capable of holding five or six hospital beds.

The Martin Felix was a building of two parts of almost the same size. The ground floor of the northern half was occupied by the owners, except for one small room and the large dining room. Smaller dining rooms occupied the main floor of the other half of the hotel. The upper floors, three in the northern half and two in the southern, comprised a number of small and irregularly placed rooms, some of which would accommodate not more than two beds. A large kitchen was located in the court.

Within the park was the Hotel de l'Etablissement, most irregularly planned, ancient and poorly kept. In parts it was three stories high, else-

Official History, U. S. A. Base Hospital, Number Thirty-one

where two stories. It had every appearance of having been built on the installment plan, without following any one style of architecture or any system of planning. Corridors were narrow, dark and crooked; rooms low-ceilinged for the main part, small but well lighted and well suited to the needs of the animal life readily found. The main floor of one part of the building embraced two large dining salons that promised utility. An annex in the rear had been used as servants' quarters in peace times. The large kitchen and adjacent rooms showed evidence of much neglect during the war.

Across the park was situated the Casino, the most modern and beautiful in Contrexeville, housing a capacious theatre, game rooms and salons which, it was expected, would be used by the surgical department, the large foyer immediately suggesting itself as an ideal operating pavilion. The Hotel Souveraine, in peace times the most luxurious and exclusive hostelry, was likewise the best preserved and most attractive building. Its architecture was typically late French, being faced with stucco and carved sandstone ornaments. Its three floors were planned identically. A wide corridor lighted from the north divided the building. All rooms were about uniform in size, exceptionally well lighted and had unusual toilet facilities, bath rooms being part of all the two and three-room suites into which the entire building was divided.

Hotel Harmand, situated opposite the Souveraine and outside the park, was four stories high, of brick and sandstone construction. An annex in the rear was three stories high above a cave built into the hill, which formed three walls. But little of the main floor was available, the owners retaining more than half. The remainder consisted of lobby and four small rooms, two of which faced the street. The upper floors were divided by a narrow corridor, and the rooms were small, though regular. They were well lighted and ventilated. The same conditions existed on the two upper floors of the annex, on the first floor of which were the large dining room and kitchen which served the hotel.

The entire town was wired for electric current, all the hotel buildings being wired sufficiently to assure fair illumination. Current was generated by a power plant in the north end of the town and under municipal control. In peace times this plant developed sufficient current to care for the needs of the entire colony. A central reservoir situated on a hill east of the town supplied the three hotels within the park and the bath house with water, being, in turn, replenished through a force pump situated in the power house of the bathing establishment, the source being River Vair. All the other hotels had independent water supplies, some of which had not been considered potable by the French. Independent pumps forced water to individual reservoirs located in the top floors of the respective buildings.

Because the water delivered to the various hotels was not desirable for drinking purposes and because one of the chief attractions of the resort

Official History, U. S. A. Base Hospital, Number Thirty-one

was the series of mineral springs, these sources were practically the only ones used for drinking water. The Pavillon, to which Contrexeville owed its reputation, yielded thirty gallons a minute, and the water was available in the largest drinking hall situated in the dome structure in the center of the "Court of Honor", as the large Greco-Roman colonnade was popularly known. The same water was bottled in the large new bottling plant opposite the Hotel Harmand. Four other springs which came to the surface within the park furnished lesser quantities of water, which possessed less widely heralded mineral and therapeutic values. These were known as the Duchesse, Souveraine, le Prince and le Quai. Still other springs of repute were situated in other parts of the village.

Unlike many other French villages of its size, Contrexeville boasted of a general sewage system, which, however, appeared of doubtful efficiency. All the hotels had septic tanks that were drained into tile pipes laid in the bed of the River Vair. The cottages and villas in the village drained to this pipe as well. Typically French "laundries", situated along the main highways, in which native women scrubbed clothes in their inimitable way, had sources of water supply piped from considerable distances. For the most part this water was from the surface and, therefore, not potable.

Two small fire pumps, an indefinite length of fire hose, a considerable number of collapsible canvas buckets and a set of short ladders made up the village equipment for fire fighting. They were kept under lock and key, the key being hidden securely. Almost without exception the buildings showed the results of their misuse or disuse during a period varying from a few months to four years prior to the coming of the Americans. Some of the hotels had been occupied as French hospitals and had not been thoroughly policed upon their departure. Others bore the natural accumulation of refuse.

It was apparent immediately that the first work before the entire organization was to "clean house" and to make way for a real American hospital in what had every appearance of an antiseptic impossibility. This conclusion having been reached so soon after arrival, Base Hospital No. 31 prepared itself for weeks of action such as had not been looked forward to. Non-arrival of necessary equipment alone retarded the start.

Jan. 6: The first Sunday in Contrexeville will live in the memory of the 150 original members of the unit. More than ever before, thoughts were of home—and the work which had brought Base Hospital No. 31 and Contrexeville together. Chaplain William C. Press conducted the first religious services in the mess hall at the Hotel Continental, announcing that similar services would be held at the same place each Sunday.

Jan. 7: Part of the first floor of Hotel Continental was set aside for use as Headquarters Office for the hospital, the large room at the left of the main entrance, as the general office, housing the adjutant's staff, the

Official History, U. S. A. Base Hospital, Number Thirty-one

quartermaster and the detachment forces. An adjacent smaller room was reserved for the Commanding Officer.

The officers of Base Hospital No. 32 having used the Continental kitchen and dining room as a mess hall since their arrival, made room for the officers of Base Hospital No. 31.

Natural resistance having been lowered by the strain of the long trip overseas and across France, six members of the command became ill with measles and were transferred to Base Hospital No. 36, at Vittel, which had a contagious disease ward in operation.

Jan. 10: Two buildings, a bit removed from the other structures in the village having been leased by the United States government, the granary and drying room were abandoned as barracks for the enlisted men and the Cafe du Nord and the Villa Paradis, the latter the summer residence of a Dr. Graux, substituted. Villa Paradis was considered one of the most beautiful of the summer homes, having an elaborately planned and well cared for garden extending over a considerable area at the rear and side of the building, which was a two-story structure faced with stucco. There were several rooms of good size, with plenty of light and ventilation on each of the upper floors, a garage occupying the basement. The Cafe du Nord, almost on the very edge of the town, was quite capacious, though ancient. In comparison to what had been used as a barracks even this structure was most attractive.

Jan. 12: Sgt. Frank Pickens, who had been ill during the journey to France, died at 11:35 o'clock A. M., at Hotel Palace, U. S. A. Base Hospital No. 36, Vittel.

Jan. 17: Funeral services for Sgt. Pickens were held at Vittel, Chaplain William C. Press officiating, with Chaplain Maxon of Base Hospital No. 36 assisting. A detachment of officers, nurses and enlisted men attended the services and later marched to the cemetery where the first member of Base Hospital No. 31 to make the supreme sacrifice was given his final resting place.

Cols. A. N. Stark and Reno and Lt. Col. Fife made the first official inspection of Contrexeville. They found the work of establishment progressing as rapidly as might be expected.

Jan. 21: Because the Cosmopolitain was nearing completion as a hospital, the nurses' quarters were moved to the Hotels Moderne and Villa Jeanne Pierre in the center of the town. The majority of the Base Hospital No. 31 nurses were quartered in the Hotel Moderne, together with the nurses of Base Hospital No. 32. The well equipped kitchen and dining rooms of the Hotel Moderne made this a most desirable location.

Jan. 22: Freight cars loaded with part of the equipment purchased in Youngstown to furnish a hospital of 500 beds having arrived during the

Official History, U. S. A. Base Hospital, Number Thirty-one

past twenty-four hours, the enlisted personnel turned out to unload the queer little French "wagons". Sgt. Lloyd A. Mines, who had been in charge of most of the packing, supervised the work of unloading and transporting to the various designated places. The 400 odd cases that made up the entire shipment included all manner of equipment, such as surgical dressings, hospital linens, blankets, hospital furniture, crutches, brooms, laboratory equipment, operating room equipment, including operating tables and instruments, drug sundries, large quantities of gauze, groceries, dental equipment, instruments and supplies, office supplies, medicines, tin and glassware, X-Ray equipment, plates and supplies, typewriters, food wagons, lanterns, dry goods, toilet paper, desks, sterilizers, steam boiler, mechanics' tools, extension weights, trays, slippers, dishes, hardware, victrolas, silverware, 500 white hospital beds, 500 mattresses, 250 cots and 250 chairs.

Various buildings having been designated for their later use, much of the equipment was delivered to its proper place. Smaller articles were turned over to the medical supply department, to be operated in conjunction with the drug room. The larger outfits, such as the X-Ray and other laboratory stuff and the operating room material, were placed in their respective places.

For the purpose of observing methods followed in French military hospitals, the following officers and nurses were ordered, by S. O., No. 5, U. S. A. Base Hospital No. 31, to proceed to Military Hospital at Ris-Orangis: Major James A. Sherbondy, Capt. M. P. Jones, Capt. C. C. Wolferth, Capt. F. J. Bierkamp and Nurses Winifred Bullock, Pearl M. Worley, Hattie M. Hyland and Anna O. Jones.

Jan. 24: The Hotel Souveraine, being one of the structures intended for hospital purposes, the officers of both institutions who had been quartered there moved to new homes. Base Hospital No. 32 had acquired the Villa Plaisance and for the men of No. 31, Hotel du Parc was leased. Hotel du Parc was in plan a truncated triangle, four stories high, of sandstone and stucco construction. On the main floor was the lobby, which had been used as a cafe, the dining room and kitchen. On the upper floors were several well kept, well lighted and ventilated rooms, ideally arranged for use as officers' quarters, making possible housing and feeding under the same roof. Most of the fourth floor was retained by the French.

Jan. 26: The capacity of the hospital having been increased to 1,250 beds, the first consignment of the additional equipment from the government storehouses was received and necessitated unloading two cars carrying 418 beds. To date thirty-two freight cars of government and Red Cross material had arrived and their contents distributed. Lt. William K. Allsop, of the surgical service, having been detailed as officer in charge of unloading supplies, supervised the distribution of all materials.

Official History, U. S. A. Base Hospital, Number Thirty-one

Jan. 28: The first function which suggested anything other than the most strenuous life of the army was a dance at Vittel, under the auspices of Base Hospital No. 23, and at which the guests were the officers of the other three hospitals in the center.

Jan. 29: The eight buildings to be occupied as hospitals by Base Hospital No. 31 were designated numerically as follows: No. 1, Casino; No. 2, Souveraine; No. 3, Harmand; No. 4, Continental; No. 5, Martin Aine; No. 6, Thierry; No. 7, Martin Felix; No. 8, Etablissement.

Jan. 30: The first prescription was filled in the drug room although the department had not been completely furnished or equipped. Two rooms on the ground floor of the Hotel Harmand were designated for use of the Pharmacy and Medical Supply department with 1st Lt. William H. Bunn, M. R. C., in charge, and Sgt. 1c Frank H. McWhirter, non-commissioned officer in charge. Pvt. Fred Lewis was detailed for duty as assistant to the pharmacist. All medical supplies, not including large items such as beds and operating room equipment, and all Red Cross materials were to be handled through this department.

Jan. 31: During the month which elapsed since Base Hospital No. 31 had arrived in Contrexeville a great deal of necessary work was accomplished. The detachment was divided into two general parts, one of which performed yeoman duty in the unloading of the more than forty freight cars that brought Red Cross and government equipment. During the earlier days they helped unload similar equipment for Base Hospital No. 32. The other half of the detachment, together with the nurses, spent many long hours cleaning the hotel buildings, some of which apparently had not received particularly careful attention for some time. Floors had to be scrubbed, walls washed down, windows cleaned, partitions built and almost every other sort of work done to make the buildings ready for occupancy. In the first month of the period of preparation a great many beds were placed, most of the larger equipment partially installed and the work as a whole greatly advanced.

Feb. 8: The Y. M. C. A. opened its "hut" in the "Salle Chaude" on the colonnade, a room furnished by the American Red Cross. The event was celebrated with a house warming party at which the band played. Mr. Percy McFeely, the Y. M. C. A. secretary, announced that a canteen at which all available supplies would be sold, would be conducted together with a writing and game room and such other conveniences as might become available from time to time.

Feb. 10: Lt. Davis Spangler, formerly with Base Hospital No. 36, was assigned to Base Hospital No. 31 to be associated with Lt. Orrin D. Hudnutt in the operation of the X-Ray department. Lt. D. B. Phillips was relieved from further duty with this department.

Official History, U. S. A. Base Hospital, Number Thirty-one

Feb. 18: General John J. Pershing, Commander-in-Chief, American Expeditionary Forces, accompanied by members of his staff, made a general inspection of this center. His unheralded arrival found the entire personnel engaged in unpacking the recently received freight and preparing buildings.

Lt. Forrest W. Ward, D. R. C., was ordered to Army Sanitary School, Langres, Marne, pp No. 24, S. O. No. 38, H, A. E. F., Feb. 7, 1918, for a course of training.

Feb. 27: Cook Hobbs and Pvt. Funkhouser rejoined the command by transfer from Casual Officers Depot, S. O. R., Feb. 27, per par. No. 16, S. O. No. 6, Hq. Casual Officers Depot, S. O. R., Feb. 25. They had been left behind in the United States because of illness at the time of departure from Camp Mills.

Feb. 28: The end of the month found Contrexeville greatly changed in appearance. Its streets had been cleaned of unsanitary accumulations. The hotel buildings assumed a new appearance, externally, because the grounds immediately surrounding the structures had been thoroughly policed; internally, because industrious nurses and enlisted men had scrubbed and scoured for days and days, until floors looked as near as possible like the milky white floors insisted upon in American hospitals. Truck loads of dirt and refuse had been carted out of the buildings and dilapidated articles that had been left around were removed. Nurses who had been assigned to the various buildings had busied themselves with the cleaning of windows and woodwork, while the corps men scrubbed floors and did the various other bits of manual labor. Beds had been placed in some of the buildings and much of the more elaborate apparatus had been permanently placed. The X-Ray room, occupying space on the main floor of the Hotel Etablissement, facing the Casino was practically equipped, except for some articles not yet arrived from the United States and not as yet replaced.

The buildings having been put in a condition which would permit of their use in emergencies, the organization was tentatively arranged as follows:

Medical Service: Major Colin R. Clark, Chief of Service

Hotel Continental: Capt. C. C. Wolferth, in charge

Lt. D. B. Phillips

Lt. W. H. Bunn

Nurse Pearl M. Worley, in charge

Sgt. Cyril P. Deibel, ward master

Hotel Martin Aine: Lt. C. D. Barrett, in charge

Lt. C. M. Reed

Nurse Anna O. Jones, in charge

Sgt. Harry R. McPhee, ward master

Surgical Service: Major James A. Sherbondy, Chief of Service

Casino: Capt. A. E. Brant, in charge.

Nurse Mary D. Mitchell, in charge of operating room

Nurse Esile G. Mohler, in charge of wards

Sgt. Joseph L. Heffernan, ward master

Hotel Souveraine: Lt. C. H. Moses, in charge

Lt. E. R. Thomas

Nurse Blanche A. Lewis, in charge

Sgt. Paul Meyer, ward master

Hotel Harmand: Lt. John U. Buchanan, in charge

Nurse Edith Hadsall, in charge

Sgt. 1c Harry S. Gaskeen, ward master

Hotel Etablissement: Capt. M. P. Jones, in charge

Nurse Hattie Hyland, in charge

Hotel Martin Felix: Lt. Dean A. Nesbitt, in charge

Lt. R. W. Fenton

Nurse Esther Erickson, in charge

Sgt. R. D. Fenton, ward master

Hotel Thierry: Lt. W. K. Allsop, in charge

Nurse Grace Harris, in charge

Sgt. A. R. Forsyth, ward master

March 1: Building No. 1 (the Casino), including the operating room and adjacent facilities, was put in commission, providing Base Hospital No. 31 with one of the most complete operating rooms in the A. E. F. The Casino building, erected in 1900, had been the principal gathering place of summer guests at the Contrexeville health resort and was the most elaborately finished of all the buildings occupied by Base Hospital No. 31. The capacious foyer leading to the Casino Theatre was transformed into a brilliantly lighted, airy and always pleasant operating room. Two large rooms that had been used as lounges and play rooms became surgical wards and other adjacent rooms were put in commission as preparation room, sterilizing room, officers' and stock rooms.

In the preparation room were installed several tables for removing patients' clothing and generally preparing for operation. On the other side of a partition was a small service room for the convenience of the preparation room and the small surgery room on the other side. Two regulation operating tables in the small operating room were for infected cases, the larger operating room being reserved for clean cases. Five regulation operating tables and one Hawley orthopedic table constituted the principal equipment of the large operating room. Side stands, electric lamp standards and service tables were conveniently placed. All floors were cement or tile. Ample electric light facilities were provided, and, to

Official History, U. S. A. Base Hospital, Number Thirty-one

further guarantee light under emergency circumstances, a complete acetylene gas system was installed, providing lamps of high candle power over each table. An alcove was equipped with suitable facilities for surgeons' preparation room. The office of the Chief of Surgical Service and sleeping quarters for operating room personnel were nearby.

Leading from the operating room was a corridor which connected two wards, the total normal capacity of which was fifty beds. One was to be used as an admitting ward, to which the most seriously wounded would be brought, and the other to serve as a "shock" ward for the care of patients whose condition following operation would not permit of their early transportation to proper wards. A small kitchen, sufficiently large for the needs, was adjacent to one of these wards.

The equipment of the sterilizing room was thoroughly modern. A large steam boiler just outside the window provided sufficient pressure for sterilizing purposes. Inside the room were installed one 5-large drum autoclave, a double water sterilizer and large sized utensil and instrument sterilizer. A long table through the center of the room was for making dressings and general utility purposes. Surgery equipment included an ample supply of instruments, comprising regular U. S. Army and Red Cross surgical instruments for ordinary and special work, including an Albee bone set, Mueller intra-tracheal anesthetizer, Ohio nitrous oxide oxygen machine and Gwathney bedside unit.

The X-Ray Laboratory began operations, taking as its first plate an exostosis of femur, the patient being Pvt. Wallace H. Pifer. All equipment brought to Contrexeville from Youngstown had been put in operation, together with some apparatus supplied by the A. E. F.

March 3: Capt. Ralph R. Morrall returned from detached service, pp. No. 46, S. O. No. 51, G. Hq., A. E. F., Feb. 20, 1918, having been away from the organization since September, 1917, when he was attached to the Orthopedic service at Washington.

March 8: Lt. O. D. Hudnutt was ordered from duty to detached service, pp. No. 12, S. O. No. 14, Hqs., S. O. R., A. E. F., March 1, 1918.

March 11: Lt. Forrest W. Ward returned from detached service, pp. No. 9, S. O. No. 60, Hqs. Army Schools, A. E. F., March 6, 1918, having been at the Army Sanitary schools at Langres for the special dental course offered there.

March 12: The arrival of a detachment of nurses belonging to Hospital Unit "G" told of the coming of a complete detachment of officers and men on the following day. The nurses were quartered at the Hotel Souveraine.

March 13: Hospital Unit "G" reported for duty with Base Hospital No. 31 by assignment pp. No. 3, S. O. No. 67, Hqs. B. S. No. 4, S. O. R.,

Official History, U. S. A. Base Hospital, Number Thirty-one

A. E. F., March 9, 1918, bringing to the organization eleven officers, twenty-one nurses and forty-eight enlisted men as follows: Major Edward S. Van Duyn, Commanding; Capt. Henry A. MacGruer, M. R. C., Adjutant and detachment commander; Capt. William D. Alsever, M. R. C.; Capt. Clarence E. Coon, M. R. C.; Capt. George S. Britten, M. R. C.; Capt. Henry Burton Doust, M. R. C.; 1st Lt. Earl V. Sweet, M. R. C.; 1st Lt. Murray A. Cain, M. R. C.; 1st Lt. Clyde O. Barney, M. R. C.; 1st Lt. Walden E. Muns, M. R. C.; 1st Lt. Arthur D. Meyers, M. R. C.

The nurses, who reported for duty on March 12, were: Miss Augusta R. Morse, in charge, and Anna B. Chaffee, Louisa F. Cramp, Elizabeth J. Dewhurst, Margaret M. Joyce, Kathryn M. Kull, Nellie J. Murphy, Laura A. Reynolds, Henrietta V. Robinson, Cassie A. White, Helen I. White, Mary P. Wight, Edna M. Bousfield, Bertha M. Boyd, Katherine A. Corcoran, L. Grace Cotton, Ellen F. Cramp, Anna B. Davis, Lillian A. Johnson, Frances E. King and Margaret MacDill.

The enlisted men reporting for duty were: Sergeants, Moses E. Kaletzki, Ernest J. Eberling, Daniel P. Cady; Corporals, William W. Dosser and Paul F. McGinley; Cook, Maurice L. Doust; Privates, first class, John J. Belmont, Jesse E. Cantor, Charles S. Carpenter, William S. Day, Clifford C. Goes, Robert V. Hessler, Walter R. Howlett, Charles H. Kaletzki, Harry L. Kallet, George D. King, Thomas R. Kinsey, Alvia R. Morrow, Arthur T. Nield, Thaddeus B. Oot, Arthur H. Parker, Elmer E. Roberts, Jr., Maurice H. Robineau, Sidney F. Rolfe, Harold T. Schubert, George A. Scobell, Paul A. Van der Schouw and William M. Wilbur, and Privates, William K. Baker, Paul M. Chaffee, Donald W. Chase, William J. Dee, Robert Dewhurst, George L. Ebeling, Louis L. Goes, Samuel E. Hinkley, John L. Horan, John J. Mahar, Arthur F. Mulvihill, Joseph A. Murphy, Edward H. Newell, Clarence H. Nicholson, Frank B. Nicholson, Howard F. Nostrant, George W. Posthill, Cleon D. Sponable, Francis W. Sheppard and Harold M. Totman.

Hospital Unit "G" was organized by members of the faculty of the College of Medicine, Syracuse University, in accordance with plans of the American Red Cross, in June, 1917, with Dr. Edward S. Van Duyn in charge. The officer personnel was determined soon, heads of various departments at the University College of Medicine making application for commissions in the Medical Reserve Corps. The following members of the faculty were commissioned and ordered to await further instructions: Major Edward S. Van Duyn, professor of clinical surgery; Capt. William D. Alsever, professor of clinical medicine; Capt. Clarence E. Coon, professor of orthopedics; Capt. George S. Britten, former assistant professor of oral surgery and otologist to the University Hospital; Capt. Henry A. MacGruer, professor of dermatology and syphilology; 1st Lt. Henry Burton Doust, professor of therapeutics; 1st Lt. Earl V. Sweet, assistant professor

Official History, U. S. A. Base Hospital, Number Thirty-one

of clinical medicine; 1st Lt. Murray A. Cain and 1st Lt. Clyde O. Barney, instructors in clinical surgery; 1st Lt. Walden E. Muns, city bacteriologist and instructor in bacteriology; 1st Lt. A. D. Meyers, assistant at University Hospital. Capt. J. Herbert Irish, of Surgical Staff of Homeopathic Hospital, completed the quota.

The nurses were recruited from the staff of the University Hospital, other Syracuse institutions and prominent hospitals in other cities, giving Unit "G" a nurse corps of experienced institutional workers, together with several who had had large private practice. The enlisted personnel was selected from more than 250 applicants for enlistment, 26 of the 50 being graduates or students at Syracuse University. Several others of the personnel were graduates of other universities, including a number of medical students and pre-medics.

While awaiting orders for mobilization of the entire unit, Captain Coon was ordered to report at Camp Shelby, Miss., for duty with the orthopedic department and Capt. Britten was ordered to report at the Army school for Brain surgery in New York City.

The following nurses were ordered to duty at Camp Wheeler, Savannah, Ga.: Louisa Cramp, Helen I. White, Cassie A. White, Katherine Corcoran and L. Grace Cotton. Five others, Frances King, Lillian A. Johnson, Bertha Boyd, Margaret MacDill and Mary P. Wight, were sent to Camp Greene, Charleston, S. C., for service until Unit "G" was mobilized. In both camps there had been measles and pneumonia epidemics of alarming proportions. Several of the personnel had been inducted into service under the draft law pending actual enlistment of the unit. They were transferred to Unit "G", prior to sailing.

Major Van Duyn received orders to proceed with the mobilization of Unit "G", under date of December 10, 1917, the mobilization being effected on December 14. Following six days of training in the New York State Armory, Syracuse, under the direction of Capt. Frederick Sembach, N. Y. G., and Capt. H. A. MacGruer the unit left for Fort MacPherson, Atlanta, Ga., on the night of December 19, arriving on December 22. During the period of training many officers and enlisted men were on duty at General Hospital No. 6. An extensive course of lectures was conducted in accordance with the training program followed by similar units attached to General Hospital No. 6 for training. Capt. J. H. Irish, because of illness, was transferred from Hospital Unit "G" to General Hospital No. 6, as was Pvt. Leo Bennett, who was subsequently honorably discharged.

Unit "G" left Fort MacPherson on February 15, proceeding under orders to Camp Merritt, New Jersey, there to prepare for embarkation, which was accomplished on February 25 on the S. S. Olympic (No. 527). New York harbor was left the following day, February 26, 1918, overseas service dating from that date. Pvt. Thomas Posthill did not accompany the unit from Camp Merritt, being confined to Base Hospital No. 1, New

Official History, U. S. A. Base Hospital, Number Thirty-one

York. Being one of the three medical formations on board ship Unit "G" shared the work of operating the ship hospital and infirmary. Major E. S. Van Duyn was a member of the Board of Controlling Surgeons, and Lt. W. E. Muns was Sanitary Inspector. Lt. Cain and Lt. Sweet were on duty in the hospital wards, and Lt. Barney was attached to the ship infirmary. Nurses and corps men were on duty in the wards.

Arriving at Liverpool on March 6, Unit "G" left for Southampton, England, leaving behind as a patient at the American Hospital in Liverpool, Pvt. Walter J. Welch. After three days at rest camp in Southampton, the officers and enlisted men proceeded to Havre where they were joined by the nurses who had preceded them. After one day at Havre orders were received to proceed to Contrexeville, Vosges, there to report to the Commanding Officer, for duty.

Leaving Havre before daybreak the special train which carried three other "letter units" started what promised to be a slow but interesting journey through France, the destination at that time being rather uncertain. The officers travelled in second class compartments and the men rode—seven to a compartment, in what seemed the most ancient third class coaches on the railroads of France. The suburbs of Paris were reached the first night—and the event was celebrated by one of the biggest air raids perpetrated by the enemy, a flotilla of Boche planes bombing the city and the railroad yard in which the train which carried Unit "G" waited for clearance. Three bombs struck within 200 yards of the train, one of them shaking the string of cars and breaking the windows in the coaches occupied by the officers. The flashing sparks flying through the sky had attracted many of the men to the car tops. When it became apparent that the "shooting stars" were coming just a bit too close no time was lost in seeking shelter, many of the inquisitive men not waiting to climb down.

Pleasant weather marked the journey through the valley of the Marne. The spectacle of crude wooden crosses, one of which bore an American flag, all along the roadbed seemed a spiritual initiation for the work to come. Along the route more or less had been learned about Contrexeville and Base Hospital No. 31, and the person who first sighted the Hotel Cosmopolitain in the distance spread the cry of "Home, boys, Home".

Temporary quarters were arranged on arrival in the Hotel Harmand, the entire annex being turned over to the Unit "G" personnel. The officers were assigned to rooms on the second floor of the Hotel Martin-Aine. The newcomers were given an ovation as they filed into the mess hall at the rear of the Continental, their faces bearing colorful evidence of their fifty-five hour journey.

March 15: Master Hospital Sergeant William H. Williamson and Sergeant first class Harry M. Raub were discharged from the United States Army to accept commissions as First Lieutenants, Sanitary Corps, U. S. N. A.

Official History, U. S. A. Base Hospital, Number Thirty-one

March 23: The first trainload of patients for the Contrexeville hospital center brought twenty-six officer patients to Base Hospital No. 31, the remainder going to Base Hospital No. 32. It had been arranged previously that all officer patients be cared for in the Hotel Thiery, which was reserved for that exclusive use. The arrival of this convoy marked the official opening of Base Hospital No. 31 and closed the third general subdivision of the institution's history.

Strenuous activity from the moment of arrival in Contrexeville through the first fifteen weeks in town converted what had seemed almost uninhabitable buildings into a modernly equipped American Hospital. Only the conscientious effort of the nurses and enlisted men, to say nothing of the officers in charge, made the metamorphosis possible. Men who had come to France with visions of heroic possibilities in the caring for the ill and wounded were content to scrub floors; nurses, who had expected that all their training would be none too much to meet emergency requirements, forgot that training and washed windows.

It was not long after the unit arrived before it became evident that the personnel was not large enough to handle a hospital of 1,200 beds. The necessity of an organization for every building larger than had been anticipated, together with the presence of all manner of other detail soon created a demand for more men and nurses. The officer staff, too, needed enlarging. This need was met with the addition of Hospital Unit "G", which brought eleven of the most prominent men in the medical profession in Syracuse, together with twenty-one nurses of much experience and fifty enlisted men, most of whom were college graduates or students. Immediately upon their arrival this detachment entered into the spirit of the work and took their part in the house cleaning which had not yet been accomplished.

OPERATION

The work of preparing buildings well advanced, and the personnel adjusted to meet the requirements of all departments, Base Hospital No. 31 was ready for its official opening which came with the arrival of its first American patients. Medical and surgical work had been done prior to March 23, but the patients were from the personnel or French civilians and there had been no general scheme of operations published. With the prospect of additional convoys arriving at frequent intervals the administration outlined a set program.

The officer personnel having been assimilated, bringing the eleven officers of Hospital Unit "G" into departments for which they were best qualified the following roster was promulgated:

Major A. E. Schlanser, Commanding Officer.

Capt. S. M. McCurdy, Adjutant.

Capt. E. C. Kaefer, Quartermaster.

Major C. R. Clark, Director.

Surgical Service:

Major J. A. Sherbondy, Chief.

Major E. S. Van Duyn.

Hospital No. 1—Casino: Capt. A. E. Brant

Lt. D. A. Nesbitt

Hospital No. 2—Souveraine: Lt. C. H. Moses

Lt. E. R. Thomas

Hospital No. 3—Harmand: Lt. D. B. Phillips

Lt. A. D. Meyers

Hospital No. 6—Thiery: Lt. W. K. Allsop

Lt. E. V. Sweet

Hospital No. 7—Martin-Felix (Bone and Joint)

Capt. R. R. Morrall

Capt. C. E. Coon

Lt. J. U. Buchanan

Lt. M. A. Cain

Hospital No. 8—Etablissement: Capt. M. P. Jones

Lt. C. O. Barney

Official History, U. S. A. Base Hospital, Number Thirty-one

Medical Service:

Major C. R. Clark, Chief
Capt. C. C. Wolfert

Hospital No. 4—Continental: Capt. W. D. Alsever
Lt. W. H. Bunn
Lt. R. W. Fenton

Hospital No. 5—Martin Aine: Capt. H. B. Doust
Lt. C. D. Barrett
Lt. C. M. Reed

Admitting Building: Capt. W. D. Alsever, Lt. A. D. Meyers. Ophthalmology: Capt. J. L. Washburn, Capt. F. J. Bierkamp. Otology: Capt. G. S. Britten, Capt. F. J. Bierkamp and Capt. J. L. Washburn. Rhinology and Laryngology: Capt. F. J. Bierkamp, Capt. J. L. Washburn, Capt. G. S. Britten. Urology: Capt. A. E. Brant. Neurology and Psychiatry: Lt. P. G. Borden. Syphilology and Dermatology: Capt. H. A. MacGruer. Laboratories: Lt. D. B. Farley, Lt. W. E. Muns. Roentgenology: Lt. O. D. Hudnutt, Lt. D. Spangler. Dental: Lt. W. H. McCreary, Lt. F. W. Ward. Sanitary Corps: Lt. William H. Williamson, Lt. Harry M. Raub.

The enlisted personnel was under the direction of Lt. Colin Mc. F. Reed, as Detachment Commander, Sergeant Harry S. Gaskeen serving as detachment sergeant. Other non-commissioned officers, previously named at various times, were assigned as follows: Sgt. 1c Lloyd A. Mines, quartermaster; Sgt. 1c Robert E. Jones, adjutant's office; Sgt. 1c Frank H. McWhirter, dispensary; Sgt. Roy D. Fenton, building No. 7; Sgt. Allan R. Forsyth, building No. 6; Sgt. John M. Fraser, commissary; Sgt. Joseph L. Heffernan, operating room; Sgt. Harry R. McPhee, building No. 5; Sgt. P. C. Meyer, building No. 2; Sgt. G. L. More, barracks; Sgt. Claude H. Morrow, admitting room; Sgt. Alfred T. Button, detachment office; Sgt. Frederick H. Button, registrar's office; Sgt. Lamont H. Button, architect; Sgt. Cyril P. Deibel, building No. 4; Sgt. Matthew C. Leskawa, quartermaster; Sgt. Walter S. Pritchard, medical supply; Sgt. Carl S. Turner, mechanics; Sgt. Moses E. Kaletzki, linen room; Sgt. Daniel P. Cady, building No. 8; Sgt. Ernest J. Eberling, unassigned; Corp. William W. Dosser, sanitary; Corp. Paul F. McGinley, unassigned.

The organization of the Nurse Corps had as its chief, Miss Frances Kehoe. Miss Martha Anderson and Miss Augusta Morse were assistants with Miss Winifred Campbell, night supervisor. Building Charge nurses were: Miss Esile G. Mohler, building No. 1; Miss Mary Mitchell, operating room; Miss Blanche A. Lewis, building No. 2; Miss Edith Hadsall, building No. 3; Miss Pearl Worley, building No. 4; Miss Anna Jones, building No. 5; Miss Grace Harris, building No. 6; Miss Esther Erickson, building No. 7; Miss Hattie Hyland, building No. 8. Assignments of other nurses

Official History, U. S. A. Base Hospital, Number Thirty-one

to buildings were not made, except in so far as they were necessary to care for the patients in the hospital.

March 27: Sgt. 1c Ray L. Thomas, left behind as a patient in the United States and recovered from injuries suffered in an automobile accident, rejoined the command, by transfer from Casual Officers Depot, S. O. S. per par. 25, S. O. No. 9, Hqs. S. O. S., March 24, 1918.

March 30: The following promotions in the enlisted personnel were announced: To sergeants first class: Sgt. Alfred T. Button, Sgt. Joseph L. Heffernan, and Sgt. John M. Fraser. To sergeant: Pvt 1c Harry W. Baird and Cook William J. Rupp. To corporal: Pvt. 1c Hugh C. Cover and Pvts. Walter L. Meuser, Walter A. Church, Lee J. Pelen, Robert A. Walton and Harold B. Ellis. To cook: Pvt. 1c John Bovill, Jr., and Pvts. Harry Ford, William M. Gribble, and Arthur M. Stone. To mechanics: Pvts. Edson L. Hart, David J. Irwin and Abraham D. Beam. To privates first class: Pvts. Lester O. Gibson, John J. Barth, Bertram Lustig, Harrison T. Sexton, Raymond T. Schottenberg, William M. Kohlmorgan, Harold Funkhouser, Auren D. Williams, Joseph O. Chambers, Arthur M. Devey, Waldo E. Ripple, Joseph W. Robb, John M. Thornton, Cecil W. Whitworth, Raymond Johnston, Arthur E. Genuske, William P. McBride, Thomas B. Davis, John M. McCaughey, Paul H. Velker, William E. Stewart, James P. Snead, John M. Cavanaugh, Ralph K. Wallace, Robert McCreery.

April 4: Pvt. Harold Van Norden died at 10 o'clock A. M. this date at Camp Hospital No. 25, A. P. O. No. 726, Blois, from cerebro spinal meningitis. Pvt. Van Norden joined Base Hospital No. 31 at Allentown, but was left behind at Camp Mills because of illness.

April 8: Because of many advantages to be derived from joint effort in a central laboratory such an institution was opened to serve the needs of Base Hospitals No. 31 and 32. The recommendation of Colonel J. F. Siler, Director of Laboratories and Infectious Diseases, favored the establishment of a central institution to be created by the pooling of all equipment and laboratory staff. He also recommended the establishment of a number of smaller subsidiary laboratories in the wards of the two hospitals, for the handling of clinical pathology. The fact that the two hospitals occupied thirteen somewhat widely separated buildings necessitated some such arrangement.

Four officers were made available for the work as a result of consolidation and were assigned to departments as follows: Lt. Scott R. Edwards, officer in charge and serology; Lt. David R. Farley, wound bacteriologist, Lt. Elmer Funkhouser, clinical and anatomical pathology; Lt. Walden E. Muns, general bacteriology. The enlisted personnel included the following: Frank H. Judson, Raymond Johnston, Walter Howlett, Paul A. Vanderschouw, Merrill R. Fox, and Edward H. Newell of Base Hospital No. 31, in addition to a like number of men from Base Hospital

Official History, U. S. A. Base Hospital, Number Thirty-one

No. 32. Seven rooms on the second floor of the Harmand Hotel, Building No. 3, were selected as being the most central available location. Work tables, cabinets, an incubator room and other required facilities were built. Appropriate plumbing was installed, making the laboratory as modern as war conditions permitted. A storeroom, animal house and cold room were established outside the main suite. A common mortuary was arranged in the basement of the annex to the Hotel Harmand.

April 9: Orders having been received previously for the organization of surgical teams for duty with front organizations, Team No. 16, was ordered to report to the First French Army operating in the Amiens sector. The team included: Major J. A. Sherbondy, chief; Lt. C. H. Moses, assistant; Lt. Orrin D. Hudnutt, roentgenologist; Lt. C. M. Reed, anesthesiologist; Nurses Mary D. Mitchell and Clara A. Wack; orderlies: Pvts. 1c Harold Funkhouser and J. Paul Snead. Their departure automatically changed the administrative forces. Major E. S. Van Duyn succeeded Major Sherbondy as Chief of Surgical Service. Lt. Davis Spangler assumed direction of the X-Ray department and Miss Agnes Sharkey was placed in charge of the operating room, succeeding Miss Mitchell.

April 10: Orthopedic Team No. 1, Capt. Ralph R. Morrall, commanding, organized subsequent to general order providing for surgical and auxiliary teams, was ordered to active service, with instructions to report at Creil, Dept. Oise. Corp. Harold B. Ellis and Pvt. William B. Manning accompanied Capt. Morrall. Capt. Clarence E. Coon took charge of Building No. 7, the Bone and Joint Hospital.

April 13: Lt. David Farley and Pvt. 1c Frank H. Judson, of the laboratory were ordered to Epervay for a course in wound bacteriology, pp No. 1, S. O., No. 21, Hqs., U. S. A. Base Hospital No. 31, April 13, 1918.

April 16: Walter J. Welch, Pvt. Hospital Unit "G", reported for duty from Casual Depot, Blois, pp No. 25, S. O. No. 30 Hqs., Casual Officers Depot, April 14th, 1918. Pvt. Welch had been left in Liverpool in the American Hospital ill with pneumonia.

April 17: Capt. Henry A. MacGruer was relieved from further duty with Base Hospital No. 31 and ordered to proceed to Neufchateau, there to report for duty with Division of Urology and Dermatology, per S. O. No. 36, Par. 48 Hqs. A. S., S. O. S., A. E. F.

April 18: Capt. Sidney M. McCurdy was relieved from duty as adjutant, by 1st Lt. William H. Williamson, S. C., N. A., per Hospital Order No. 24, Base Hospital No. 31, A. E. F.

April 19: The arrival of additional nurses, both for Base Hospital No. 32 and 31, necessitated a change in the original housing plan. Unit "G" nurses, who had been quartered temporarily in the Hotel Souveraine, Building No. 2, had to be moved because of the need of that space for hospital purposes. Because there was not sufficient room in Hotel Moderne

Official History, U. S. A. Base Hospital, Number Thirty-one

for the detachment of both hospitals the Villa Douze Apotres was leased and assigned to Base Hospital No. 31, assuring ample room for all nurses and providing one of the most elaborate of the smaller hotels for personnel use. Before the war this hotel had been the gathering place of notables from all parts of the world, its restaurant being noted as one of the very finest eating places in France. The exceptionally well equipped kitchens were placed at the disposal of the detachment. There were sufficient rooms to house all the nurses, two in a room, the water, light and heating facilities being ample to meet all needs. A large dining room served a double purpose in that it was sufficiently large for entertainment and dance purposes. A reception and lounge room was prettily fitted up.

April 22: Classes for nursing personnel and corps men were outlined under the direction of Major C. R. Clark, Director. The school for enlisted men was arranged to take up courses designed to acquaint them with the general characteristics and distribution of germs, and a brief outline of the more common infectious diseases such as typhoid fever, pneumonia, tuberculosis, meningitis, etc. Personal cleanliness, and practical methods for caring for sputum, feces, urine, etc., in infectious cases were discussed from a non-technical viewpoint. For the men on duty in surgical wards there were lectures on surgical cleanliness; asepsis and antiseptic preparation and care of dressings; wounds, their varieties and complications; care and treatment, infections; fractures and their special care; splints and apparatus. The tentative outline for nursing classes to assure a uniformity of policy and method included the following subjects:

Making an empty bed.

Making an Ether bed.

Changing an undersheet with a patient that can move, and a fracture case and one that cannot.

Removing and placing pillows.

Turning a patient in bed; lifting patient up in bed.

Improvising back rest for Fowler's position.

Making heel rests.

Care and use of rubber goods; before and after use.

Filling and care of ice-caps and hot water bottles.

Disinfecting rubber sheets; use of rubber rings. Care of catheters.

Methods of taking temperature, pulse and respiration.

Sponge bath — cleansing bath.

Care of the mouth.

Care of backs; care of bed sores.

Enemata — Kinds and methods of giving.

Use and care of bed pans and urinals.

Collecting of specimens.

Policing of wards and necessity of quietness and order.

Serving trays.

Surgical nursing.

Handling sterile basins; opening cans; preparation for a dressing.

Cleaning up after a dressing. Shock. Hemorrhage.

Nursing of contagious diseases.

Official History, U. S. A. Base Hospital, Number Thirty-one

April 23: Lt. David Farley and Pvt. 1c Judson returned from detached service at Epernay, where they took a most interesting ten-day course in wound bacteriology under French bacteriologists.

April 28: The organization of the medical officer personnel was considerably rearranged as a result of the departure of eight officers in answer to a call for medical men for duty with the 26th Division. The following responded to the call and were ordered to proceed to headquarters 26th Division, pp. No. 1, S. O., No. 28, Base Hospital No. 31:

Lt. Clyde O. Barney, Lt. Murray A. Cain, Lt. John U. Buchanan, Lt. Everett R. Thomas, Lt. Dean A. Nesbitt, Lt. William K. Allsop, Lt. R. W. Fenton and Lt. C. D. Barrett. Lt. E. V. Sweet succeeded Lt. Allsop as Officer in Charge of the Hotel Thiery.

April 30: Capt. M. P. Jones was relieved from further duty and ordered to report to Commanding General, 26th Division, for assignment to permanent duty in accordance with Par. 97, S. O., No. 42, Hqs. S. O. S., A. E. F., April 23, 1918. Major George S. Britten was placed in charge of Building No. 8, and Sgt. Daniel P. Cady was assigned to duty as sergeant in charge of the building.

May 2: The American Red Cross having leased from the Societe des Eaux, the Etablissement Hydromineral, the two base hospitals in this center acquired exceptionally fine bathing facilities, the bath house being one of the most modern and thoroughly equipped of its kind in France. It compares favorably with the better medicinal bathing places in the United States. The opening of the bath house at this time was occasioned by the arrival of the first trainload of patients for Base Hospital No. 31. The convoy included 173 enlisted men, of which only twenty-six were Americans, others being French. The majority of cases were medical, preponderately gas. Hospital Ward No. 4, Hotel Continental, was put into service for the first time, for the accommodation of allied medical cases.

The work of receiving this convoy was greatly facilitated by the use of the bath house, a two story circular building, of brick and stucco construction, with an entrance to the colonnade. The elaborate furnishings used in the peace time operation had been removed from the entrance, from which there were stairways to the second floor and doors opening to the circular hallways which led to the rows of bath rooms. On the main floor were twenty-nine bath rooms, arranged in four series, two of which were considered "first class" compartments, the remainder being smaller rooms with copper tubs. In the first class suites there were two rooms, one of which contained a luxurious porcelain tub of exceptional proportions. On the second floor were twenty-seven bath rooms, most of which were equipped with porcelain tubs.

Official History, U. S. A. Base Hospital, Number Thirty-one

In addition to the ordinary tub baths there were a number of rooms equipped for the special treatments followed in the prosecution of the health cure here during peace times. All of these had been turned over to the use of the hospitals. In the special bath rooms there were facilities for meccano-therapy, hydrotherapy, light and vapor baths and a complete X-Ray outfit. The last was taken over by the X-Ray department of the hospital to be operated in conjunction with the regular laboratory in rush periods. Two rooms were especially adapted for use in giving sulphur baths. Boiler facilities assured a plentiful supply of hot water at all times. The management of the bath house was charged to Capt. W. D. Alsever and Lt. A. D. Meyers. Pvt. Francis W. Sheppard was put in charge of operation, with Pvts. Arthur Mulvihill and Howard Nostrant assisting. Three enlisted men were assigned from Base Hospital No. 32 to supervise policing.

May 4: Mrs. Belmont Tiffany of New York City, in France as a Red Cross worker, was present at the opening of the Casino theater, leased by the Red Cross. The occasion was celebrated by an elaborate program, Mrs. Tiffany being an honor guest and the principal speaker. With the opening came the announcement that Capt. Lawrence Hitchcock, through whose efforts the theater was procured for the use of the soldiers, had been transferred to headquarters at Paris. The occasion was a fitting close to his career in Contrexeville, exemplifying, as it did, the energy and interest given in the behalf of the Army formations in Contrexeville. In his final address Capt. Hitchcock outlined briefly the work contemplated by the American Red Cross, and reviewed generally the accomplishments since his arrival. Capt. W. H. Thompson was announced as his successor.

Other speakers were Major A. E. Schlanser, Chaplain Francis of Base Hospital No. 32, Lt. Charles L. Baker, Infantry, U. S. A., one of the first patients, and Mrs. Tiffany. The Unit band played under the direction of Capt. Edward Stellar, Infantry, U. S. A., also a patient. The theater, of elaborate design, had a seating capacity of 500 persons. Its stage was spacious and well equipped. In peace times this was one of the most attractive places in Contrexeville.

May 6: The initial supply of Dakin's solution was prepared by the pharmacy in anticipation of the arrival of surgical convoys. Arrangements were made for the maintenance of a large supply, Pvt. Fred Lewis, assistant pharmacist, being placed in charge of this department.

May 7: Six nurses were ordered to proceed to Base Hospital No. 9, Chateauroux, for temporary duty, per S. O. No. 42, Hqs., Base Hospital No. 31, as follows: Catherine B. Bonner, Olive M. Dunn, Ella Mae Gilchrist, Grace B. Harris, Ellen F. O'Brien and Mary P. Wight. Miss Winifred Bullock succeeded Miss Harris as charge nurse at Hospital No. 6, Hotel Thiery.

Official History, U. S. A. Base Hospital, Number Thirty-one

May 11: Thomas B. Davis, having been classified by the Disability Board for evacuation to the United States, was ordered transferred to Base Hospital No. 8, per S. O., No. 45, Base Hospital No. 31.

May 12: The second large trainload of patients for Base Hospital No. 31 brought 277 cases, of which 157 were Americans, 113 French and seven Italians. Ward No. 5, Martin Aine, was used to care for the American medical cases, the allied patients going to Ward No. 4 and Ward No. 3, almost completely filling these two buildings to their normal capacity. A great many of these patients were surgical, having been evacuated from the front. Hospital No. 7, Martin Felix, cared for much of the surgery, bringing into operation all but one of the buildings, the Etablissement alone not being in use.

May 14: Capt. Sidney McCurdy was relieved from further duty with Base Hospital No. 31, per Special Order, No. 47, Hqs., U. S. A. Base Hospital No. 31, quoting par. 2, S. O., No. 56, Hqs., S. O. S., A. E. F., and was ordered to report to Commanding Officer 1st Division for assignment to duty. Lt. David Farley assumed charge of the Central Laboratory, succeeding Lt. Edwards of Base Hospital No. 32, who was relieved from further duty at this center. Lt. E. J. Wehman was assigned to duty succeeding Lt. Edwards. Major Edward S. Van Duyn was ordered to go to Evacuation Hospital No. 1, pp. 49, S. O., No. 130, G. H. Q., A. E. F., May 10, for the purpose of observing methods of evacuation hospital work and to ascertain the correct relations between evacuation and base hospital surgery.

May 17: Lt. Parker G. Borden, M. R. C., was commissioned Captain, M. C., U. S. R., per cable W. D. 1362 R, May 10, 1918.

May 28: Capt. C. C. Wolferth was ordered from duty to detached service at Central Laboratories, Dijon, pp. 104 S. O. No. 70, Hqs. C. S., S. O. S., A. E. F. May 21, 1918.

May 30: The entire command of Base Hospital No. 31 together with Base Hospital No. 32 turned out for the Memorial Day exercises, the French military authorities and civilians co-operating to honor the American dead. Led by the Unit band, the two detachments marched through the streets of the village and before an improvised reviewing stand in front of Hospital No. 5, thence to the village cemetery, where a few American soldiers already had been given their final resting place. The elaborate services were conducted under the joint direction of Chaplain William C. Press and Chaplain Francis. Major Fink, Medicin Chef representing French interests in Contrexeville, paid a splendid tribute to the American soldier. A volley of twenty-one guns fired over the American graves ended the official ceremony, after which French civilians decorated all the graves with native flowers.

Official History, U. S. A. Base Hospital, Number Thirty-one

June 1: The arrival of the first convoy of battle casualty surgical cases found the operating department in good working order. A train-load of British patients evacuated during the German drive in the north included a great many cases with wounds three to five days old. This was the first opportunity for an actual test of the working facilities of the bath house in the handling of surgical cases. A dressing room had been established in one of the large bath rooms, to which all minor surgical stretcher cases were carried. Ambulatory surgical cases were passed through the bathing system and sent to the wards for which they had been classified by the triage officer. Surgical stretcher cases were sent from the dressing room to the X-Ray, whence they were sent to the operating room if immediate operation was necessary, or to the proper ward for observation and subsequent operation.

Hotel Harmand, which had been selected as the surgical building for French and Allied patients, was caring for a considerable number of French patients admitted during the previous month, and was now filled with the more seriously wounded British. The overflow of surgical cases was sent to Building No. 4.

In the large majority of cases admitted at this time, gas bacillus and haemolytic streptococcus infection had set in. In many instances there had been no previous medical attention, many of the soldiers having found their way back to the point where the hospital train was being made up without passing through medical formations. The anesthetic used for most of these first emergent operations was ether. For secondary operations, such as infections with constitutional manifestations, gas gangrene, hemorrhage and for operations on chests, nitrous oxide oxygen was the anesthetic of choice.

June 2: Pvt. Beryl H. Harter reported for duty with Base Hospital No. 31, from the engineers, pp. No. 38, S. O. No. 72, Hqs., S. O. S., May 23, 1918. He was a member of Hospital Unit "G" but had entered the service before that unit was called to active service.

June 4: The first of a series of clinical meetings, planned by Major C. R. Clark, was held under the auspices of the Medical Service. It was planned to hold similar sessions each week, the surgical service alternating in charge. Subjects of interest to the medical profession were discussed at the first meeting. It was planned to invite officers returning from army schools to review their courses at such clinics. Special papers dealing with professional matters were to be prepared for the meetings by members of the staff. Nurses and enlisted men were invited to attend lectures in which they were particularly interested.

June 8: Capt. C. C. Wolferth returned from detached service at Central Medical Laboratories, Dijon, where he had taken the special course in resuscitation under Major Cannon.

Official History, U. S. A. Base Hospital, Number Thirty-one

June 9: Capt. H. B. Doust was ordered to Central Laboratory, Dijon, for special resuscitation course, pp. No. 57, S. O., No. 158, G. H. Q., A.E. F.

June 13: Major Adam E. Schlanser was ordered to proceed to headquarters, S. O. S., Tours, per telegraphic instructions, Hqs., S. O. S., June 11. Major C. R. Clark assumed command of the hospital.

June 14: Pvt. E. E. Sayers, M. E. R. C., reported for duty, pp. 16, S. O., No. 69, Hqs. Casual Officers Depot, S. O. S., June 12, 1918. Pvt. Sayers, enrolled as a member of Hospital Unit "G", was left behind in the United States.

June 16: Lt. Col. A. E. Schlanser returned from detached service at headquarters, S. O. S., where he was notified of his promotion from the rank of Major and relieved as Commanding Officer, Base Hospital No. 31, with assignment to duty as Commanding Officer, Hospital Center, Mars-sur-Allier, in course of construction. Major C. R. Clark, who had been in command since the departure of Lt. Col. Schlanser, became Commanding Officer, and relinquished his duties as director. He was relieved as chief of the medical service by Capt. C. C. Wolferth.

June 17: Five enlisted men, selected by Lt. Col. Schlanser for his staff at his new station, were ordered to proceed to Mars-sur-Allier for duty at headquarters, Hospital Center. They were: Sgt. 1c Alfred T. Button, Sgt. Lamont H. Button, Mechanic A. D. Beam, Cook William M. Gribble and Pvt. 1c Joe Peters.

June 20: The enlisted men of Base Hospitals No 31 and No. 32 presented a minstrel show in the Red Cross theater, a capacity audience acclaiming it a tremendous success. Developed during a few free hours the production was well conceived. The lines were clever and the music melodious. A chorus of more than thirty voices backed up a circle which comprised several stars. The production was under the direction of a committee which included Privates Walter A. Onorato and Arthur F. Mulvihill of Base Hospital No. 31, and Privates Joseph Duffy and Paul R. Matthews of Base Hospital No. 32. Pvt. 1c C. H. Kaletzki was stage manager, and Pvt. Charlie McGlynn was property man.

Included in the cast were the following soldiers of this command: Privates Jesse E. Cantor, Charles S. Carpenter, Arthur Mulvihill, Frank E. Moore, Walter A. Onorato, Randall M. McNabb, William M. Wilbur, Samuel J. Holt, Rex Fortney, Alphonso DeWaldo, Harold T. Schubert, Maurice L. Doust, Frank H. McKelvey, Clarence H. Nicholson, Edward H. Newell, John J. Belmont, Harry L. Kallet, George Scobell, Sidney F. Rolfe, Clair V. Dobson, Louis L. Goes, Arthur John, Howard Nostrant, J. J. Bovill, Daniel Griffin, Lloyd H. Gleason, Maurice H. Robineau, Raymond T. Schottenberg, Mech. D. J. Irwin, Corp. Lee J. Pelen, Sgts. Daniel P. Cady, M. E. Kaletzki, Harry W. Baird.

Official History, U. S. A. Base Hospital, Number Thirty-one

June 21: Major Colin R. Clark received notification of his promotion to Lt. Col. as of June 6, 1918, per cable No. 1050R, par. 1, June 12, 1918.

June 24: In accordance with Hospital order No. 76, quoting telephonic instructions of Commanding Officer, Hospital Center, the following detachment of nurses and enlisted men was ordered to proceed to Evacuation Hospital No. 2 at Baccarat for emergency duty: Nurses Mary Murphy, Edith Caldwell, Edna M. Bousfield, Lena M. Hurd, Minna T. Meyer, Leona Osborne, Adelaide Vanderholt, Ora M. Welshons and Ella Brown, and Pvts 1c Lester Gibson and Auren D. Williams, and Pvts Joseph D. Baker, Joseph Robb, Paul V. Manning, Frederick L. Gorman, James W. Davis, Joseph T. Seifert, Walter A. Holtzmann and Archie T. Minamyers.

June 26: Capt. Frederick J. Bierkamp was ordered to report to Base Hospital No. 66 for temporary duty, pp. 88, S. O., 175, G. H. Q., A. E. F., June 24, 1918. Capt. R. R. Morrall returned from detached service with Orthopedic Team No. 1, to await further assignment.

June 28: 2nd Lt. R. M. Smith, Q. M. C., reported for duty as quartermaster in accordance with par. 107, S. O., No. 102 Hqs., S. O. S., June 24, 1918.

June 29: A trainload of American patients from the Luneville sector was admitted, most of the cases being gas and liquid fire casualties.

June 30: The Gas Team which went to Evacuation Hospital No. 2 at Baccarat for temporary duty returned after six days of heavy work with the unit. They assisted in the preparation of cases to be evacuated to this center.

July 1: Capt. E. C. Kaefer, unit quartermaster since organization, was relieved from further duty at this center by 2nd Lt. R. M. Smith, and was ordered to report to Commanding Officer Hospital Center, Mars-sur-Allier, for duty as group quartermaster.

July 3: Pvt. Alvin L. Newman was transferred to quartermaster corps, National Army, pp. 54, S. O., 108 Hqs. S. O. S., A. E. F., June 28, 1918. Pvt. Newman had been on duty with the quartermaster commissary.

July 4: The entire command was called out at 2:15 o'clock A. M. to receive a convoy of Allied patients, but the train did not arrive until 5:00 o'clock. Most of the patients were French, others being Italian and Colonial troops. The early morning work of unloading a train made a good start for what proved to be a most interesting celebration of Independence Day, marked by a brilliant patriotic display in which squads of British, French and Colonial troops joined with the Americans. Lt. Col. C. R. Clark was in charge of the program and introduced as speakers, Bishop Francis, Chaplain of Base Hospital No. 32; Capt. W. B. Fuller, Major Fink, Medecin Chef of the district, and M. Morel, Mayor of Contrexeville. The entire village was decorated, every means being employed by the

Official History, U. S. A. Base Hospital, Number Thirty-one

natives to improvise the American flag, which could be obtained only in limited quantities, insufficient to meet the desires of the community. The afternoon was given over to athletics.

July 6: Seven officers who had been on duty with the 26th Division since April 26, returned to duty with Base Hospital No. 31, as follows: Lt. E. R. Thomas, Lt. W. K. Allsop, Lt. C. D. Barrett, Lt. J. U. Buchanan, Lt. M. A. Cain, Lt. R. W. Fenton and Lt. C. O. Barney. Their experiences at the front were many and various. Upon reporting to the Commanding Officer, 26th Division, Lt. Thomas was assigned to the 102nd Ambulance Company. Lieutenants Fenton and Barrett went with the 102nd Field Hospital; Lt. Allsop was with the 103rd Field Hospital and Lieutenants Barney, Cain and Buchanan were with the 101st Field Hospital. Subsequent changes sent Lt. Barrett to the 102nd Ambulance Company and Lt. Buchanan to the 103rd Ambulance Co. After serving in the Toul sector until June 30th they were mobilized and transported to the Chateau-Thierry sector, arriving there on July 2nd. Orders to return to the base were received the following day.

July 10: Surgical Team No. 17, Major Edward S. Van Duyn commanding, left for detached service, per tel. instructions Hqs. A. E. F., July 8, to report to Evacuation Hospital No. 4, at Ecury-sur-Coole, five miles southeast of Chalons-sur-Marne. Other members of the team: Lt. Murray A. Cain, M. C., assistant; Lt. Arthur D. Meyers, M. C., anesthetist; Nurses Miss Augusta Morse, and Miss Grace Cotton; Orderlies, Sgt. Ernest J. Eberling and Pvt. 1c Alvia R. Morrow.

July 11: Ward "X", designed to systematically handle the problem of properly exercising convalescents almost ready for discharge from the hospital, was opened. It was planned by a systematic record of hours of fatigue duty and condition upon completion, to watch closely the progress of all patients. Frequent hikes were scheduled, a physical examination at the end determining the fitness of each case suggested for discharge to duty.

July 13: Surgical Team No. 16, Major J. A. Sherbondy, commanding, returned from detached service with the First French Army, pp. 60, S. O. 193, G. H. Q., A. E. F. The team had been cited in general orders of the First Army, General Debeney commanding, on July 1, together with other American surgical teams. Team No. 16 had been on duty with Auto-Chirs No. 20 and 1, to the first of which the team was assigned after reporting at Beauvais on April 13. Following ten days of active service the team was transferred to Auto-Chir No. 1, serving in the same neighborhood.

During their service with the French, Major Sherbondy's team operated more than 400 cases, including French, English, Russian, Senegalese, other colonial and American troops. They served the first American Division when that body made its first offensive at Cantigny. All this work

Official History, U. S. A. Base Hospital, Number Thirty-one

was done under circumstances and in surroundings entirely foreign to American method. The operating rooms were the typical French field mobile type. The team operated with Major Sherbondy, chief, Lt. Moses assisting; Lt. Reed, anesthetist and Lt. Hudnutt roentgenologist. Nurses Mitchell and Wack had been returned to their command because their services were not required in the French operating room system under which the team worked.

July 14: The command joined in the simple festivities which marked the celebration of Bastille Day by the French. The day was made the occasion for the presentation of French Military honors to patients in Base Hospital No. 31, two soldiers, one of them a colonial, being decorated with the Croix de Guerre.

In response to a special call from Major Edward S. VanDuyn on duty at Evacuation Hospital No. 4 with Surgical Team No. 17, the following nurses were ordered to proceed to that hospital for temporary duty, per hospital order No. 98, Base Hospital No. 31, A. E. F.: Nurses Lelia Gettles, Catherine Cassidy, Grace Singer, Minna T. Meyer, Edith Caldwell, Bertha Witt, H. Victoria Robinson and Cassie A. White.

July 15: Pvt. 1c C. C. Goes was transferred to Q. M. C., N. A., pp. 85, S. O. 121 Hqs. S. O. S., July 11, 1918. He had been on duty with the quartermaster at Vittel.

July 18: Lt. Col. Colin R. Clark, commanding officer, and first Director of Base Hospital No. 31, was transferred to headquarters Base Section No. 1, pp. 101, S. O. 119, Hqs. S. O. S., July 9, 1918. Lt. Col. Clark was made chief medical consultant to Base Section No. 1, in accordance with the plan of medical consultants for each base section of the S. O. S. Capt. A. E. Brant succeeded Lt. Col. Clark as commanding officer.

Surgical Team No. 16, after its brief stay at the Base, was ordered to report to Evacuation Hospital No. 7 at Coulommiers, per telegraphic instructions, Hqs. A. E. F. Because of the changed requirements, Lt. O. D. Hudnutt did not accompany the team, and Nurses Mary Mitchell and Clara A. Wack rejoined.

Capt. Frederick J. Bierkamp returned from detached service with Base Hospital No. 66 per tel. instructions, G. H. Q., A. E. F., July 17.

July 20: Pvt. 1c W. H. Ludt was transferred as private to Q. M. C., N. A. pp. 20, S. O. 125 Hqs. S. O. S., July 15, 1918.

July 21: Pvt. Clifford Ainge was transferred to 11th Provisional Co. A. P. O. 726, per S. O., 11, Par. 4, Hqs. S. O. S.

July 22: Pvt. Marcus M. Kalbfleisch was transferred to Camp Hospital No. 29, pp. 26, S. O. 202 Hqs., B. S., No. 2.

Official History, U. S. A. Base Hospital, Number Thirty-one

July 23: Lieutenants J. M. Hundley, W. C. Duffy and D. H. Hallock, M. C., U. S. A., reported for temporary duty with the surgical staff, per telegraphic instructions, Hqs., A. E. F.

July 24: In accordance with S. O. No. 126, U. S. A. Base Hospital No. 31, quoting par. 98, S. O., 134, Hqs., S. O. S., July 24, 1918, Nurse M. Loretta Shea was ordered to proceed to Camp Hospital, Coetquidan (Loire Inferieur) reporting to Commanding Officer for duty.

July 25: Capt. H. B. Doust, Nurses Katherine Corcoran and Margaret MacDill, and Pvts 1c John J. Belmont and Arthur H. Parker, were ordered to report for duty as a Gas Team, per telegraphic instructions, Hqs. A. E. F., July 24.

July 27: The following nurses returned from detached service at Base Hospital No. 9 at Chateauroux: Catherine B. Bonner, Olive M. Dunn, Ella Mae Gilchrist, Grace B. Harris, Ellen F. O'Brien, Mary P. Wight.

July 29: All records for receipt of patients were broken with the arrival of 614 American patients from the Chateau-Thierry front. When first news of that drive was received the hospital was put in readiness to care for an almost unlimited number of patients. Of the number received all but few were seriously wounded, there being a small number of enteric cases, and some psychoneuroses. The work done by the unloading details under the direction of Sgt. Claude Morrow in handling this large number of cases was particularly noteworthy. Working under handicaps, such as a shortage of ambulances, the detrainig crew removed the stretcher cases from the train to the receiving wards with despatch and considerate care, at no time losing sight of the fundamental principle that the personal comfort of the soldier was the first consideration.

August 1: Capt. Parker G. Borden, M. C., U. S. A., on duty with Base Hospital No. 31 as Psycho-neurologist, was ordered to report for duty at French Ambulance 8/5.

August 2: Pvt. 1c Merrill R. Fox, was ordered to report to Army Gas School, Langres, Marne, to take the course of instruction in Chemical Warfare, in accordance with S. O. No. 131 Hqs., Base Hospital No. 31.

August 7: Capt. Frederick J. Bierkamp was relieved from further duty with Base Hospital No. 31 and transferred to Base Hospital No. 21, serving the British at Rouen.

August 8: Contrexeville took on a bit of the summer gaiety it had known before the war, the occasion being a benefit musical performance in the park. Although, in comparison with pre-war days, the number of guests was exceptionally small, there was a positive reflection of the nature of activities at this world famous resort.

Official History, U. S. A. Base Hospital, Number Thirty-one

August 9: Four casual officers reported for duty with Base Hospital No. 31 under direction from the Casual Medical Officer Depot. They were: Capt. R. S. Stryker, Capt. J. V. Blake, Capt. L. R. Hill and Lt. A. S. Hunt.

August 19: Orders having been received to keep as many vacant beds as possible available for any emergency, all patients were classified for evacuation. During the evening 288 stretcher cases were evacuated on one train. The work of transporting the patients from the hospital buildings to the train was accomplished in 93 minutes, figuring from the time the first ambulance reported until the last patient had been transported. The entire personnel turned out to make the evacuation as rapid as possible.

August 22: Surgical Team No. 16, Major J. A. Sherbondy, commanding, returned on leave from the vicinity of Neufchateau, following a period of intensive activity with Evacuation Hospital No. 7. The team, which left Contrexeville by automobile on July 17, arrived at Coulommiers the evening of the 18th, after an all day and all night ride through territory under heavy bombardment by the then rapidly advancing enemy. The same evening found the team at work together with other surgical teams which had reported to Evacuation Hospital No. 7. The team worked all through that night and up to noon the next day.

Long hours, inadequate supplies, which could not be replenished with sufficient rapidity and facilities which could not be improved because of the urgency of the surgical work, did not cheat Surgical Team No. 16 of a glorious record during the thirteen days preceding August 1st, when orders were received transferring the team to Evacuation Hospital No. 6 at Cirey. More than 22,000 patients, most of them American soldiers, passed through Evacuation Hospital No. 7 during these two weeks. A very fair proportion of these cases were handled by Major Sherbondy's team. Evacuation Hospital No. 7 together with the surgical teams was cited in general orders. Reporting to Evacuation Hospital No. 6, at Cirey, on August 1st, Team No. 16 continued to serve the American and Allied forces. During the period ending August 19, more than 10,000 patients passed through this hospital. On August 19th, Surgical Team No. 16 was ordered to vicinity of Neufchateau to await further orders.

Being ranking officer with the command Major Sherbondy became Commanding Officer U. S. A. Base Hospital No. 31, succeeding Capt. A. E. Brant.

August 23: In accordance with plans of the Chief Surgeon's Office to centralize as much as possible the executive forces, Lt. Col. G. V. Rukke relinquished his command of Base Hospital No. 23, at Vittel, and organized the headquarters staff, Hospital Center, Vittel-Contrexeville. Lt. A. C. Calish, S. C., N. A. became adjutant. Although the four hospitals in this center had been, to all intents and purposes, operated under the center system, the establishment of headquarters resulted in a change in paper

Official History, U. S. A. Base Hospital, Number Thirty-one

work whereby reports for all hospitals were co-ordinated at the center. All matters of local jurisdiction were concentrated in the office of the Commanding Officer of the center.

August 25: Although general orders permitted leave period of seven days for each four months of foreign service the first group of enlisted men of Base Hospital No. 31 were sent this date to the Savoie Leave Area, Aix-les-Bains. Ten enlisted men made up the group.

August 28: Capt. John M. Hensch, joined for temporary duty, pp. 84, S. O. 232, Hqs., 1st Depot Div., A. E. F., August 23, 1918. He was assigned to the orthopedic department.

Sept. 2: Its personnel changed, Surgical Team No. 16 was ordered to report to Evacuation Hospital No. 6 at Souilly. Nurses Mary Mitchell and Clara Wack were relieved, Nurses Adelaide Vanderholt and Agnes Sharkey being substituted. Pvts. 1c John M. Cavanaugh and Alban A. Ahn replaced Pvts. 1c Harold Funkhouser and J. Paul Snead. Capt. A. E. Brant resumed command of the hospital on the departure of Major Sherbondy.

Because of the growing practice of sending ambulance convoys to this center an arrangement was made whereby the two base hospitals would handle convoys on alternate days, each unit maintaining a detail, each twenty-four hour period, for the proper handling of patients at the bath house.

Sept. 3: Although September 7th marked the first anniversary of Base Hospital No. 31, that occasion was celebrated four days in advance due to the fact that a large number of men would not be present on the seventh on account of vacation schedules. With 150 or more men who were present the occasion will live in memory as a feast of laughter, joy and wholesome good sport. The spontaneity of mirth bespoke the mental attitude of the personnel. The celebration was the occasion of a banquet. Transformed from mess hall to banquet room, as it was by the rearrangement of tables, the introduction of tablecloths and mural decorations, the large dining room of the Hotel Continental was an ideal spot. At one end was a platform upon which was the jazz band of the center. At the opposite end of the hall the unit band played. The music from the two lent a metropolitan atmosphere. Formalities were cast to the winds and "Mirth, Manger and Melody" was the slogan.

Funeral services for Capt. W. H. Guilfoyle, M. C., U. S. A., the first officer patient to die at Base Hospital No. 31 were held, Chaplain William C. Press officiating. The entire command led by the unit band formed part of the procession which accompanied the remains to the burial plot. The Masons of Base Hospital No. 31 were in charge of services.

Sept. 8: Having been returned from the Army Gas School, Langres, Marne, on the completion of the course, Pvt. 1c Merrill R. Fox was ordered to report to Commanding Officer Chemical Warfare Service Experimental

Official History, U. S. A. Base Hospital, Number Thirty-one

Field, Chaumont, for assignment to duty, pp. 110, S. O., 236, G. H. Q., A. E. F. August 24, 1918.

Base Hospital No. 31's first anniversary was celebrated by the officers and nurses at a "dinner-dance" at the Hotel Continental.

Sept. 9: Following an inspection by representatives of the Chief Surgeon's Office, verbal orders were given for the expansion of hospital facilities. The bed capacity was raised to 1,900 and steps were taken immediately to place the extra equipment. Every building was called upon to care for from ten to fifty per cent more patients, by placing beds and cots in places that hitherto had not been used. Corridors were crowded. Clothes closets with wide openings and sufficient air were made to accommodate a cot. Part of what had been used as a mess hall accommodated twenty patients, and almost every nook and corner was utilized. The greatest aid in meeting the requirements was the large Casino porch, which hitherto had been used to only a limited extent. Old beds of almost any description were dug up from somewhere and made suitable. Mattresses were aplenty and the large reserve supply of linens was more than adequate to meet all the needs of expansion.

To meet possible requirements for prolonged spells of emergency operation, the operating room was changed around in accordance with a revised plan of handling surgical cases which had been worked out as a result of experiences during the Chateau-Thierry drive. A new receiving room was opened on the ground floor of Building No. 8, to which all surgical stretcher cases were taken. Fractures and severe head cases, however, were sent direct from the trains to the orthopedic and head hospitals respectively. On patients being admitted to the triage room, where there were two operating tables, the triage officer determined what cases should be sent directly to the operating room, and which should go to wards to await their return to the surgery.

It was planned that upon leaving the triage room where first dressings had been removed and new ones placed, the patients scheduled for the operating room should pass through the X-Ray department at the other end of the building. The location of foreign bodies indicated the patients were to go to the rear of the Casino where a room had been equipped for preparation purposes. As rapidly as there was place in the operating room, patients were to be taken from the preparation room to the tables. In the interim X-Ray reports and laboratory findings, if tests had been made, were to be made ready. To all practical purposes the hospital was put on an evacuation hospital basis. Although the beds were placed, it appeared possible that they would never be all filled at one time, except in the emergency for which preparations were being made. The orders were to evacuate all cases as rapidly as possible, holding only such cases as could not stand travel or which would be ready for return to duty within two weeks.

Official History, U. S. A. Base Hospital, Number Thirty-one

Sept. 9: Surgical Team No. 17, Major Edward S. VanDuyn commanding, returned to Contrexeville on special verbal orders to procure supplies, clothing, etc., for its personnel, the team having been relieved temporarily from active duty while transferring from one theater of operation to another. The report of activity during the two months of evacuation hospital services shows Team No. 17 to have passed through the most strenuous of American fighting in the Chateau-Thiery drive.

Making the journey from Contrexeville to Ecury-sur-Coole by train the team arrived at its destination in the late evening, and reported for duty in the morning, after spending the night in temporary shelter. On July 16 the first patients were received from the front lines, Team No. 17, together with five other surgical teams arranging a schedule requiring twelve hour shifts daily. During the succeeding days an average of thirty operations, of varying severity, were performed during each twelve-hour shift by the team. During the following nights, while operations were proceeding under full stress, the staff was considerably menaced by frequent bombing by enemy planes and attacks of machine gun fire by planes flying low over the Hospital camp and its environs. This harassing circumstance did not prevent Team No. 17 from running three tables at a time. When three tables were in operation, Lt. Cain was in charge of the second table with Sgt. Ernest J. Eberling and Miss Edith Caldwell, A. N. C., anesthetizing, together with Lt. Meyers. Approximately 250 operations were performed by this team up to August 6th, when Evacuation Hospital No. 4 moved to Chateau-Pereuse, four miles from Le Ferte.

Within twenty-four hours after the hospital had arrived at Chateau-Pereuse large convoys of patients from the Chateau-Thiery fighting arrived, necessitating intense emergency activity. There was little let-up in this program during the entire stay at Chateau-Pereuse. About 250 operations having been performed by Team No. 17 before the hospital was moved to Coincy where for a period of two weeks, all the strenuous operating schedules through which Team No. 17 had passed were outdone. Gradually, however, the work became lighter until the Americans were moved out of this sector and ordered to the vicinity of Neufchateau. It was while awaiting further orders for field duty that Team No. 17 received permission to proceed to Contrexeville.

Sept. 11: Pvt. 1c John J. Bovill was transferred to Convalescent Camp, Hospital Center, Allerey, pp. 154, S. O. 175, Hqs. S. O. S., A. E. F., Sept. 3, 1918.

Sept. 12: Surgical Team No. 17 was ordered to remain on detached service, with Base Hospital No. 31, for evacuation hospital duty.

Sept. 20: In accordance with S. O. No. 240, Hqs. Base Hospital No. 31 quoting par. 87, S. O., 259, G. H. Q., A. E. F., Sept. 16, 1918: Sgt. 1c Joseph L. Heffernan was ordered to report to Officer in Charge, "Stars and Stripes", Paris, for assignment to temporary duty.

Official History, U. S. A. Base Hospital, Number Thirty-one

Sept. 22: Three substitutions in officer personnel were effected in accordance with telegraphic instructions from Hqs., A. E. F. as follows: Lt. J. M. Hundley, to Surgical Team No. 106, vice Lt. W. A. Bressmer; Lt. D. H. Hallock to Surgical Team No. 557, vice Lt. Leo Dretzka; Lt. W. C. Duffy to Surgical Team No. 557, vice Capt. S. D. Maiden.

Sept. 25: Lt. E. V. Sweet returned from detached service at Central Laboratories, Dijon, where he had taken the course in resuscitation, under orders of Sept. 20.

Sept. 26: The following enlisted men, Medical Department, joined this organization by transfer from Training school for Sanitary troops, First Depot Division A. E. F., pp. 140 S. O. 259, Hqs. First Depot Division, Sept. 19, 1918: Corporal Joseph G. Steines, and Privates Mitchel Kuluzny, Thomas C. McConnell, Donald R. McGriff, Thomas L. McLaughlin, John B. McMillen, Harry J. Maloy, Dennis J. Meehan, Louis F. Mercier, Isadore Meyer, Max Nichols, Valentine K. Noble, Anthony Opasinski, George W. Payne, Rudolphe Pacquin, Michael Pilachowski, Andrew Pizzuto, Arthur Quenneville, Antonio Remollino, Monroe Richie, Richard R. Roach, Earl L. Roark, Charles F. Rogers, Balsar J. Bohrer and Timothy L. Ryan.

Sept. 29: Through the activities of the American Red Cross, Villa Jeanne, on Rue Salabery, was leased and furnished for use as a Nurses' Club, with Miss Beryl M. Johnson as directress. Villa Jeanne with ten rooms on three floors, all prettily furnished, made a "homey" gathering place. The two large rooms on the first floor were furnished as a music room and parlor, with pretty wicker ware furniture and appropriate floor coverings. A kitchen for the preparation of afternoon tea and dainty luncheons, such as Miss Johnson planned, was well equipped. On the second floor were three rooms, furnished as reading and lounge rooms for the exclusive use of the nurses. The most attractive room in the house, however, was on the top floor. It boasted of a sewing machine, ironing board and electric flat irons.

Sept. 30: Capt. John L. Washburn, Capt. W. D. Alsever and Capt. George S. Britten were notified of their promotion to the rank of Major, M. C., U. S. A., per telegram, Chief Surgeon, A. E. F., dated Sept. 30, 1918.

During the month of September 2,007 patients were admitted to Base Hospital No. 31, all but thirty being Americans.

Oct. 1: Major John L. Washburn, by virtue of his rank, assumed command of Base Hospital No. 31, relieving Capt. A. E. Brant. Capt. S. D. Maiden, Lt. Leo Dretzka and Lt. W. A. Bressmer, reported for duty per tel. instructions, G. H. Q., A. E. F., Sept. 23, 1918. Capt. Maiden took charge of the ophthalmology department relieving Major Washburn.

Oct. 3: Another Red Cross institution was added to the facilities of Contrexeville with the opening of the Red Cross barber shop in a small building leased from the French. Two barber chairs, manned by convales-



THE PICTURES

Upper left: Loading an ambulance at the railroad siding.

Upper right: A French hospital train, showing windows broken by machine gun bullets from a Boche plane.

Upper center: Patients awaiting admittance to the X-Ray laboratory. In the background, a "Chest case" enjoying the fresh air on the porch of Building No. 8.

Lower center: Patients, just arrived, awaiting their turn in the American Red Cross Bath House. They have just had a cup of hot coffee served by the Red Cross girls.

Lower left: A French hospital train.

Lower right: Unloading an American hospital train.

Official History, U. S. A. Base Hospital, Number Thirty-one

cents, cared for the tonsorial needs of convalescents unable to shave themselves, and cut hair for all patients. For the convalescents who could shave, straight razors, safety razors, sufficient soap, brushes and a large supply of towels were furnished, guaranteeing proper sanitation.

Oct. 10: Miss Dorothy Millman, Army Nurse Corps, this command, died, following illness of several weeks. A resident of Youngstown, O., Miss Millman was one of the most capable and beloved members of the nurse detachment. Her brother, George A. Millman, a member of the command, was at her bedside when she died.

Pvt. Sheridan L. Weaver was transferred to Optical Unit at headquarters, Hospital Center, Vittel, per S. O. No. 280, G. H. Q., A. E. F., Oct. 7, 1918.

Oct. 11: The entire command was present at the funeral of Miss Dorothy Millman, A. N. C. The body was laid in state in the Orthodox Church during the morning. Services were conducted by Chaplain W. C. Press, the unit marching to the burial plot where committal services were conducted.

Oct. 13: Surgical Team No. 562, Capt. George H. Laws commanding, was joined for temporary duty. Other members of the team: Lt. R. E. Amos, Nurse Miss G. Mae Granville, and Pvt. A. D. Archibald.

Oct. 14: The American Red Cross opened its hut, which had been in course of construction for several weeks. Because of the presence of respiratory diseases in the center it was impossible to celebrate the occasion in the manner desired, there being only a simple housewarming sufficient to introduce to the patients and personnel of the two hospitals what was considered the finest Red Cross hut in France. The building was 160 feet in length and 60 feet in width, of hollow tile construction. At one end was a sales canteen, behind which were the storeroom, kitchen and office of the directress. At the other end was the stage with two class rooms and dressing room back of it. The main hall was 100 feet long and the full width of the building. The stage, considered one of the best appointed in the entire A. E. F., was designed by Pvt. 1c Stanley Day, of this command. A series of oil paintings, some of them showing Contrexeville scenes, adorned the walls. They were the work of Pvt. Conway of Base Hospital No. 32. Because it was planned to stage all theatrical performances and entertainments at the hut, the Casino theater was abandoned. The opening of the sales canteen replaced the facilities for such service which had been maintained by the Y. M. C. A., under the capable direction of Mr. Percy McFeely.

Oct. 16: The first promotions made since March 30, 1918, were announced as follows: To Sgt. 1c, Frederick H. Button, Cyril P. Deibel, Roy D. Fenton, Harry R. McPhee, George L. More, Claude H. Morrow, Walter S. Pritchard, Carl S. Turner; to Sgts., Corporals Walter A. Church,

Official History, U. S. A. Base Hospital, Number Thirty-one

Hugh C. Cover, William W. Dosser, Walter L. Meuser, Lee J. Pelen, Mechanic Reginald V. Taylor and Cook Arthur M. Stone, and Pvts 1c Lloyd Miller, Harrison T. Sexton, Paul H. Velker, and Pvts. Frank E. Moore, Francis W. Sheppard and Hugh C. Cooper; to Corporals, Pvts. 1c Samuel J. Holt, Harry L. Kallet, William M. Kohlmorgan and Pvt. Hazen L. Becker, Fred C. Lewis, Thomas H. Rees; to Surgical Assistants, Pvts. Harold Funkhouser, George D. King, George A. Scobell, J. Paul Snead; to Pvts 1c, Pvts. Alban A. Ahn, Joseph D. Baker, William K. Baker, James W. Davis, William J. Dee, Paul A. DeGarmo, Clair V. Dobson, Maurice L. Doust, George L. Ebeling, George F. Eppley, Albert R. Fraser, Rex L. Fortney, George P. Gee, Frederick L. Gorman, Daniel F. Griffin, Beryl H. Harter, Edward C. Hasenplug, John A. Hickman, Paul I. Hynes, Raymond J. Kane, Frank H. McKelvey, Randall M. McNabb, John J. Mahar, George A. Millman, Harry J. Moreman, Jeremiah F. Morris, Arthur F. Mulvihill, Merton V. Porter.

Oct. 17: Major W. D. Alsever, officer in charge of Building No. 4, Hotel Continental, was transferred to Base Hospital No. 63, at Caen, as Chief of Medical Service in accordance with par. 9, S. O. No. 264, G. H. Q., A. E. F. Major Alsever was the second member of the medical service to be taken from Base Hospital No. 31 for more important work elsewhere, Lt. Col. C. R. Clark, first chief of service, having been made Chief Medical Consultant Base Section No. 1. Major Alsever came to Base Hospital No. 31 as a member of Hospital Unit "G" and before entering the service was Professor of Clinical Medicine at Syracuse University, College of Medicine. In addition to his duties as head of the building staff, Major Alsever was in charge of the bath house and admitting rooms.

Lt. Carl V. Tyner reported for temporary duty, per S. O. No. 10, Hqs., Mobile Hospital No. 3.

Sgt. 1c Walter S. Pritchard was ordered to report at Intermediate Storage Medical Supply Depot No. 3, Cosne, for course of instruction, pp. 175, S. O., 210, Hqs., S. O. S., Oct. 8, 1918.

Oct. 18: The arrival of more than 500 patients within four days pressed the capacity of the hospital to the shadow of its limits, the census showing 1,786 patients, the largest number yet accommodated. Because of the possibility of additional convoys coming before an evacuation was possible still further expansion beyond the maximum limit reported to the Chief Surgeon's Office was made. Enlisted men who had been occupying cots in the various hospital buildings in which they had been working moved elsewhere, some of them pitching tents on the hillsides. Part of one building which had not been considered suitable for hospital uses and which had accommodated a number of the personnel was cleared and hospital beds placed.

The floor space of the garage not actually needed for storage of cars was filled with improvised cots and the drying room which housed the

Official History, U. S. A. Base Hospital, Number Thirty-one

personnel on first arrival was again pressed into service for convalescents awaiting discharge to duty. Additional "Henry" tents were erected and what had been used as a writing room became a hospital ward. Garrets of hotel buildings which had not been leased were borrowed from the French for the emergency, and it was even considered possible that parts of the long colonnade might be screened off and used for ward purposes. The Casino porch—perhaps the largest hospital ward in all of France, if not in the world—had 250 beds under a single roof, with not a pillar or partition. There was row on row of hospital beds the entire length of the building, all uniformly made up and placed along true lines. It presented a most impressive sight to the observer and to the patients it was a great comfort. When all this expansion had been completed the census showed more than 2,000 beds.

Sgt. 1c Carl S. Turner died at 5:15 o'clock from broncho-pneumonia after an illness of several weeks. Sgt. Turner enlisted with Base Hospital No. 31 upon its organization, despite the fact that he was above the age limit of the selective service law. Sgt. Turner was the fourth member of the personnel to have died from disease.

Oct. 19: Pvt. Ray C. McMillen, Inf., was transferred to the medical department and assigned to duty with Base Hospital No. 31, from Co. M, 168th Infantry, pp. 139, S. O., 288, G. H. Q., A. E. F.

Oct. 20: Mechanic Edson L. Hart was transferred to air service with orders to report to Air Service Replacement Concentration Barracks, pp. No. 41, S. O., 289, G. H. Q., A. E. F. Pvt. John Ramsey succeeded Mechanic Hart in charge of the Contrexeville garage.

Funeral services for Sgt. 1c Carl S. Turner were a marked tribute to the patriotism of that soldier. Hundreds of patients and members of the personnel of the two hospital units who had known him went to the church during the early afternoon to pay their last respects, and the entire command of Base Hospital No. 31 assembled for the services, after which they accompanied the body to the burial plot where Chaplain W. C. Press conducted committal services.

Capt. Alonzo H. Meyers, reported for temporary duty with Base Hospital No. 31, pp. 83, S. O., 283, G. H. Q., A. E. F., Oct. 10, 1918. He was assigned to the orthopedic department.

Oct. 21: Major H. B. Doust and his gas team, comprising Nurses Katherine Corcoran and Margaret MacDill and Pvts. 1c John J. Belmont and Arthur H. Parker, returned from detached service with Evacuation Hospital No. 7. In the several weeks they were away the members of this team cared for hundreds of patients. During the first few weeks the majority of cases were gas, the team later being turned over to the medical service to care for pneumonia cases. At one time more than 150 pneumonia cases were under the direct care of Major Doust.

Official History, U. S. A. Base Hospital, Number Thirty-one

Sgt. Matthew Leskawa was honorably discharged to accept a commission as second lieutenant, Q. M.C. per letter, G. H. Q., A. E.F.

Oct. 28: Capt. C. E. Coon received notification of his promotion to the rank of Major. Lt. Clyde O. Barney was notified of his promotion to the rank of Captain.

Oct. 29: The following classified soldiers reported for duty with this organization, pp. 26, S. O. 222, G. H. Q., Oct. 23, 1918: Pvts. 1c Charles Leicht, Walter C. Woodruff and Pvts. Lawrence M. Gale, Lucius O. Clinkscales, Frank W. Travers, Joseph A. Wolff, Volney B. Dortch, Clinton S. Royer, Floyd E. Newton and William Kemper.

Oct. 31: During the month of October 2,223 patients were admitted to Base Hospital No. 31, all but four being Americans.

Nov. 1: The following letter from the Commanding officer of the Hospital Center, was posted for the information of all concerned:

HEADQUARTERS HOSPITAL CENTER A. P. O. 732

General Orders,
No. 21

October 30, 1918.

1. The Commanding Officer of the Hospital Center, A. P. O. 732 wishes to express his appreciation of the services rendered the Allied cause by the members of the A. E. F. of this Center during the recent emergency. The results obtained were highly gratifying and show that the realization of a sense of duty has in this Center kept pace with that of the men in the Zone of Advance. With the extreme shortage of personnel, inevitable during active offensive operations, and this personnel depleted through illness, over 8,100 patients were properly cared for at one time and during a period of rapid evacuation of the Sick and Wounded out of this Center.

2. The spirit shown is what is winning the war.

3. This order will be published on all bulletin boards.

By order of Lt. Col. Rukke:

A. C. CALISH,
1st Lt. San. Corps, U. S. A.,
Adjutant.

Nov. 2: Miss Frances Kehoe, A. N. C., was relieved from further duty with Base Hospital No. 31 and Miss Sue Austin Wilson assigned as Chief Nurse. Miss Wilson had been Chief Nurse at Base Hospital No. 81 and 60, remaining with each during the period of establishment.

Nov. 3: Sgt. 1c Frank H. McWhirter was relieved as non-commissioned officer in charge of dispensary and ordered to proceed to Medical Supply Depot at Cosne, pp. 252, S. O. 327 Hqs., S. O. S., A. E. F., Oct. 25, 1918. Corporal Lewis succeeded in charge of the drug room, with Pvt. 1c Daniel F. Griffin assisting.

Official History, U. S. A. Base Hospital, Number Thirty-one

Nov. 4: Major H. B. Doust was transferred to Base Hospital No. 115, Vichy, for duty as Chief of Medical Service, pp. 14, S. O. 301, G. H. Q., A. E. F., Oct. 28, 1918. Major Doust was the second medical officer to be transferred to another hospital as Chief of Medical Service, Major Alsever having been ordered to Base Hospital No. 63 at Caen. Major Doust joined Hospital Unit "G" on its organization as a lieutenant and was advanced to the grade of captain before the unit left the United States. He was commissioned a major while on detached service with his special medical team. His work in handling pneumonia and other respiratory disease cases in the front area earned him the recommendations that resulted in his transfer to his new administrative position.

Nov. 7: Lt. John U. Buchanan was notified of his promotion to the rank of Captain, per cablegram 2051-R War Department, Washington, D. C., dated Oct. 14, 1918.

Nov. 8: WAR IS OVER!

Everyone believed it. The post band paraded through the streets. All work ceased. Impromptu speeches and other things impromptu were in order. The village of Contrexeville never had heard as much noise and never had seen so many varied forms of celebration as were employed by the soldiers.

Nor did the natives join.

The Mayor had not announced the signing of the Armistice—and the Mayor had made no mistake.

It was all premature.

Nov. 10: Rev. William C. Press, Chaplain, Base Hospital No. 31, as a Red Cross Volunteer, was notified of his commission as Chaplain in the U. S. Army with instructions to remain on duty with Base Hospital No. 31.

The following promotions were announced effective from this date: Sgts. Ernest J. Eberling and Francis M. Kirwin to sergeants first class. Corporals William M. Kohlmorgan and Fred C. Lewis to sergeants. Pvts. 1c Raymond Johnston, Frank H. Judson, Ralph K. Wallace and William M. Wilbur to sergeants. Pvts. 1c Paul A. DeGarmo, Charles H. Kaletzki and Raymond T. Schottenberg to corporals. Pvts. Daniel H. Bodin, Edward H. Newell and John E. Ramsey to privates, first class.

Nov. 11: News of the signing of the Armistice was the occasion of a celebration which shadowed, even, the impromptu festivities resulting from the unconfirmed report of a few days previous. Civic authorities spread the authentic information rapidly, and from all the country side the natives swarmed into the village to learn the details. Church bells tolled as they never tolled before. Old pieces of firearms were brought from their places of hiding and every contrivance for noise making was employed to help the natives give vent to their true feelings. Their sadness of more than

Official History, U. S. A. Base Hospital, Number Thirty-one

four years, of course, did not give way to immediate happiness, but the tears they shed on this occasion were tears of gratitude.

An American firing squad fired twenty-one volleys, and the post band played the national anthems of the Allies. The band and the firing squad marched down the street and the celebration was left to the civil population. It was but a few minutes later when the sound of three volleys and the clarion notes of "taps" were heard from the vicinity of the village cemetery. A French woman was heard to say as she turned her tear-filled eyes away: "Pauvres Americain."

Nov. 14: Pvt. 1c Daniel H. Bodin was ordered to report at Angers, with the 116th Engineers, pp. No. 5, S. O., 150 Hqs., S. O. S., cs., and telegraphic instructions Engineers Replacement Camp, dated Nov. 11, 1918.

Nov. 15: Pvt. Eugene M. Liddle was transferred to Base Hospital No. 8 for evacuation to the United States, per G. O. No. 41, G. H. Q., cs. and Circular No. 30, Chief Surgeon's Office, A. E. F.

Nov. 16: Surgical Team No. 16, Lt. Col. James A. Sherbondy, commanding, returned from detached service with Evacuation Hospital No. 6, where it had served since September 2. With work on three fronts to its credit this surgical team returned to its base with a long list of experiences perhaps unequalled by any team in France. The team was cited together with other surgical teams on duty with Evacuation Hospital No. 6 and made an enviable record. During the last period at the front Team No. 16 operated cases coming from the St. Mihiel drive and the battle of the Argonne. Lt. Col. Sherbondy, in addition to his work as chief of his team, served as instructor for other teams. Lt. C. H. Moses was made the head of a team as a result of his previous experience with the French and in the Chateau-Thierry drive. Others of Team No. 16 were Lt. C. M. Reed, Pvts. 1c John M. Cavanaugh and Alban A. Ahn and Nurses Adelaide Vanderholt and Agnes Sharkey.

Nov. 19: Lt. Col. Sherbondy was ordered transferred to headquarters Hospital Center, Vittel, pp. 27, S. O. 245, Hqs. S. O. S., Nov. 12, 1918. Lt. Walden E. Muns was notified of his commission as Captain, per cablegram No. 2147, cs., Nov. 18, 1918.

Capt. R. R. Morrall returned from detached service at Base Hospital No. 15 and was ordered to report at Base Hospital No. 202, pp. 23, S. O., 318, G. H. Q., A. E. F., dated Nov. 14, 1918. Corporal Harold B. Ellis and Pvt. William Manning returned from detached service, after a period of several months during which they had served with orthopedic teams.

Nov. 21: The first presentation of the American Distinguished Service Cross was the occasion of an elaborate celebration. Corporal Joseph Rhoades, Infantry, was decorated by Major John L. Washburn, Commanding Officer. The command in full equipment was assembled on the esplanade and was inspected by the commanding officer and his staff. During

Official History, U. S. A. Base Hospital, Number Thirty-one

the ceremony, at which several convalescent officers assisted, detachments of patients were present.

Sgt. Harry R. McPhee and Pvts. Arthur E. Genuske and Archie D. Minamyer were evacuated to Vittel, suffering from typhoid fever.

Nov. 22: Major Edward S. VanDuyn was notified of his promotion to the rank of Lieutenant-Colonel, per cable No. 2147 cs., War Department.

Nov. 24: Hospital Sergeant Robert E. Jones was advanced to the grade of Master Hospital Sergeant, which position had not been filled since March when Lt. William H. Williamson was commissioned.

Nov. 25: Lt. Col. James A. Sherbondy was attached as Commanding Officer per special orders, Commanding Officer, Hospital Center, A. P. O. No. 732, dated Nov. 23, 1918. He succeeded Major John L. Washburn.

Nov. 27: Sgt. 1c Frederick H. Button and Sgt. 1c John M. Fraser were honorably discharged from the United States Army to accept commissions as second lieutenants, Sanitary Corps, U. S. A. pp. 114, S. O., 312, G. H. Q., A. E. F., dated Nov. 8, 1918. Lt. Button was detailed as registrar and Lt. Fraser was made assistant mess officer.

Surgical Team No. 562, Capt. George Laws commanding, and including Lieutenants Tyner and Coyle, together with Nurse Granville and Surgical Assistant Archibald were ordered returned to Base Hospital No. 15, Chaumont, for duty.

Lt. Murray A. Cain received notification of his promotion to the rank of Captain.

Nov. 28: Lt. Earl V. Sweet was notified of his commission as Captain. His new commission represents the tenth promotion given the eleven officers brought to France with Hospital Unit "G". Lt. David B. Phillips was commissioned Captain.

Nov. 30: Lt. Orrin D. Hudnutt was notified of his advance to the rank of Captain.

During November 856 patients were admitted to Base Hospital No. 31. Nine of this number were not Americans. The evacuation of patients had been gradual, although all cases destined to early recovery were retained to be discharged directly to their organizations.

Dec. 1: Miss Winifred Campbell, who had been on duty as night chief, was relieved from further duty with Base Hospital No. 31 and ordered to report to Commanding Officer, Hospital Center, Savenay, pp. No. 1, S. O. 368, Base Hospital No. 31, for early return to the United States.

Dec. 3: Because congestion at regulating stations and replacement camps made it impossible to send cured patients back to duty a Casual Company was organized and Ward "X" abandoned. The passing of the convalescent ward closed one of the most interesting chapters in the history

Official History, U. S. A. Base Hospital, Number Thirty-one

of the hospital. This institution, originated to care for convalescents not needing routine medical attention, soon became one of the most important factors in the work of the hospital. It made it possible to keep the maximum number of hospital beds available for sick patients and removed those who were practically well from the hospital ward surroundings. From July 12th to date, 1,424 patients passed through the department on their way to duty. The Ward "X" personnel assumed charge of the casual company to which patients were discharged when ready to return to duty.

Dec. 5: Capt. J. V. Blake, Capt. J. M. Hench and Lieuts. W. H. Bressmer and Leo Dretzka were relieved from further duty with Base Hospital No. 31 and ordered to report to First Depot Division.

Dec. 7: The following promotions were announced as effective this date: Sgt. William W. Dosser made Sgt. first class, Pvts. 1c Walter R. Howlett, Paul Vanderschouw and George H. Watson, made Sergeants. Pvts. Robert E. McCluskey, Wallace H. Pifer, Arthur C. Thomas and Eldon D. Williams made privates first class.

Dec. 8: Pvt. 1c Lloyd H. Gleason was transferred to Base Hospital No. 8 for evacuation to the U. S., per G. O. No. 42, G. H. Q., cs., and Cir. 33, Chief Surgeon's Office. Pvt. John J. Barth, ill with typhoid fever, was evacuated to Vittel.

Dec. 10: Cook Ray McMillen was transferred to Base Hospital No. 8 for evacuation to U. S., per S. O. 375, Hqs., Base Hospital No. 31.

Dec. 11: Major Henry A. McGruer returned to duty with Base Hospital No. 31, pp. 31, S. O. 34, G. H. Q., A. E. F., Dec. 6, 1918, his work as assistant consultant in Division of Urology and Dermatology having been completed. As a result of his work in preventive measures designed to eliminate skin diseases among fighting troops, Major MacGruer received the following letter from Colonel W. L. Keller, Director Professional Services, A. E. F.:

To whom it may concern:

Major Henry A. MacGruer, Medical Corps, has served as consultant in Dermatology and Urology in the Division of Professional Services for eight months, (during the period of greatest military activity).

This officer by his unusual tact, practical recommendations and constant attention to duty gained the confidence of Division Surgeons and procured their co-operation to a degree that enabled him to eradicate skin diseases from the combat organizations in a manner that was never excelled by our allies.

(Signed)

W. L. KELLER,
Colonel Medical Corps,
Director Professional Services.

Official History, U. S. A. Base Hospital, Number Thirty-one

To facilitate the work of Major Mac Gruer, the Division of Professional Services provided him with orders of the most liberal nature permitting him to visit every American front and to inspect American troops throughout the Zone of Advance and the various sections of the S. O. S. It was within the scope of his duties to examine troops in the lines, immediately after their return to reserve or back areas, and to recommend such measures as would insure their proper disinvestment. An extended trip through all the base sections of the S. O. S. including all hospital areas and leave areas open to members of the American E. F. gave Major Mac Gruer an opportunity to investigate the measures taken to curb venereal disease by installation of proper methods of prophylaxis. Major MacGruer received his majority on September 30. He lectured at every course on skin diseases at the Army Sanitary school at Langres.

Dec. 15: Capt. Parker G. Borden, M. C., U. S. A., returned for duty with Base Hospital No. 31, per S. O. 335 par. 17, G. H. Q., A. E. F., after having been on detached service since August 1. Capt. Borden after two weeks of observation work with French Ambulance 8/5 was assigned to Base Hospital No. 117, at LaFauche as consultant in psycho-neurosis. On September 20, he was ordered to report for duty with the First Army at Benoit Veaux Neurological hospital where he was on duty from Sept. 22 to Nov. 11 on which date he was assigned to the 37th Division for duty.

Members of Surgical Team No. 16, which had been on duty during the Argonne-Meuse drive received a citation included in a letter from the Chief Surgeon, First Army, American E. F., to the Commanding Officer, Evacuation Hospital No. 6 and through him to the commanding officer of Surgical Team No. 16, Lt. Col. James A. Sherbondy. The members of the team receiving copies of the citation were: 1st Lt. C. H. Moses, 1st Lt. Colin M. Reed, Nurses Adelaide Vanderholt and Agnes A. Sharkey, and Pvts. 1c Alban A. Ahn and John Cavanaugh, together with Lt. Col. Sherbondy. The citation:

OFFICE OF CHIEF SURGEON HEADQUARTERS FIRST ARMY

November 30, 1918.

From: Chief Surgeon, First Army, American E. F.
To: Commanding Officer, Evacuation Hospital No. 6, American E. F.
Subject: Commendation for Excellent Service.

1. It is a great pleasure at the end of the Argonne-Meuse offensive, the last battle of the war, to indicate to you and your command the high appreciation in which the arduous and splendid service of the unit in several campaigns is held.

2. The cheerful and loyal co-operation of officers, nurses, and men has been productive of a standard of efficiency that should be the pride of all connected with the unit.

3. With a courage and self-sacrifice that adds luster to the crown of American womanhood the nurses have attended to the sick and wounded during air raids with a disregard for the danger that was sublime, and at all times by their tenderness and cheerfulness have alleviated the distress of thousands of wounded.

Official History, U. S. A. Base Hospital, Number Thirty-one

4. As a mark of appreciation for most excellent service Evacuation Hospital No. 6 has been designated by high authority for a place of honor in the territory occupied by the Third Army, American E. F.

A. N. STARK,
Colonel, Med. Corps, U. S. A.

Dec. 21: Miss Margaret Wilson, daughter of President Wilson, honored Contrexeville in her appearance at a concert given at the Red Cross hut. Miss Wilson was in good voice, her program appealing alike to the convalescent soldier and the personnel. She was given a tremendous ovation.

Dec. 22: The following men reported for duty with the organization, pp. No. 3, S. O. 61, Hqs. Hosp. Center, A. P. O. No. 732, A. E. F.: Pvts. 1c Joseph H. Lloyd and Rhodes C. McCall and Pvts. Robert L. Coker, Fred R. Davis, Robert M. Dazzo, Ben J. Foster, Gustho O. Fraese, Fred W. Hanson, Tillman L. Jones, Sam Levin, Herman D. Pace, Harry A. Pearson, Gary H. Ritter, John B. Rodgers and Ralph D. Turner. They were assigned from the Convalescent Camp, Vittel.

Dec. 25: To the American Red Cross must go the credit for making Christmas in Contrexeville a liveable day. More than 2,000 convalescents in the two hospitals,—all of them, naturally, reflecting on the Christmas back home,—enjoyed the hospitality of the Red Cross in the splendidly planned and executed celebration. The big party was on Christmas eve, when at six o'clock the patients at Base Hospital No. 31 filled the hut to capacity. Filing past the large and brilliantly illuminated Christmas tree the men were each presented with a comfort bag. The contents varied in some particulars, but each contained one pound of candy, one pound of nuts, one pair of socks, two handkerchiefs, a package of cakes, a box of matches, three Christmas cards, two boxes of cigarettes, one package of smoking tobacco and one bar of chocolate, in addition to one of the following: Pipe, package of playing cards, razor, tooth brush, or something else of utility. Members of the personnel were given their gifts at 8 o'clock. At the end of the hut, opposite the tree, was suspended a large star of electric lights beneath which was draped the American flag. The stage was decorated with white and red hangings and two small Christmas trees. There was a profusion of green all around the room.

For the men in the wards unable to go to the hut, there was a "real Santa Claus" affair. In addition to the package given the others, the boys in bed received two oranges, cigars and chewing gum. All the wards were prettily decorated and phonographs played during the day. Another tree for the children of the town was well patronized, every youngster in Contrexeville and environs and some from considerable distance, was given a woolen sweater, a pound of candy, a pound of nuts, package of cakes and a cut-out doll of an American soldier or Red Cross nurse.

Official History, U. S. A. Base Hospital, Number Thirty-one

Dec. 27: Cook Joseph Robb and Pvt. Arthur Quenneville and Richard Roach were evacuated to Bordeaux on a Hospital train for return to the United States.

Dec. 31: New Year's Eve was made the occasion of a double celebration, the first anniversary of the arrival of Base Hospital No. 31 in Contrexeville coinciding with the passing of the last year of the war. For the enlisted personnel there was an elaborate banquet served in the dining room of the Hotel Continental. Tables extending the length of the room accommodated more than 225 soldiers. Table cloths, napkins, numerous courses and pretty waitresses removed the atmosphere of the mess hall and allowed imagination to run wild. The waitresses were members of the Nurse Corps who had volunteered to assist in the serving. The menu prepared under the direction of the mess officer was much more elaborate than could ordinarily be boasted of in the army. The Contrexeville Jazz Band was heard at its best and a quartet of convalescent patients was well received. Boxing bouts, more or less fancy in their nature, concluded the formal program of the evening.

Jan. 1, 1919: The following promotions were announced effective from this date: Sgt. Walter A. Church to Sgt. 1c; Pvt. 1c C. W. Carlson and Pvt. M. E. Kaletzki to sergeant.

Jan. 2: Lt. Col. Sherbondy being under orders to return to the United States was relieved as Commanding Officer by Lt. Col. Edward S. VanDuyne.

Jan. 3: Lt. Col. James A. Sherbondy was relieved from further duty with Base Hospital No. 31 and ordered to report at Angers, pp. No. 3, Embarkation Orders No. 4, Hqs., S. O.S., A. E. F., dated Dec. 20, 1918.

Jan. 6: Sgt. 1c Frank H. McWhirter was transferred to Medical Supply Depot at Miramas, pp. 286, S. O. 294, Hqs. S. O. S.

Jan. 7: Base Hospital No. 32, having received orders to close its hospitals and prepare for return to the United States, evacuated 336 cases to Base Hospital No. 31. Of this number a fair proportion were patients classified for return to the United States. Only a few cases were acutely ill, the majority being in class awaiting early return to duty.

Jan. 8: Further need of extensive surgery facilities removed, Building No. 1, The Casino, was cleared of its equipment and prepared for return to French authorities. An emergency operating room was established in Building No. 2, Hotel Souveraine. The evacuation of 130 patients, most of whom had been admitted the previous day from Base Hospital No. 32, reduced the census of patients under treatment to a low figure, permitting the closing of several other buildings. Hospital No. 4, Continental, was cleared, as was Hospital No. 6, officer patients having been evacuated to Vittel.

Official History, U. S. A. Base Hospital, Number Thirty-one

Jan. 9: Major C. E. Coon was transferred to Base Hospital No. 27, per telegraphic instructions, Chief Surgeon's Office, A. E. F. He was ordered to report at Toul, to meet a hospital train with which he was to go to the port of embarkation, picking up orthopedic cases at base hospitals en route.

Jan. 10: Sgt. Reginald V. Taylor died of pneumonia, which developed after an illness of several weeks. Sgt. Taylor had been non-commissioned officer in charge of the carpenter shop, and was an original member of the unit.

Jan. 11: Insignia designating Advance Section, S. O. S., were authorized in orders from the Commanding General, S. O. S., the insignia being the Lorraine cross in red, upon a field of steel gray circumscribed by a circle of army blue one-eighth of an inch wide, the circle's diameter being two and one-half inches. The letters "A. S." in red, placed below the bars of the cross, indicated "Advance Section".

Jan. 12: Verbal orders of the Commanding Officer, Hospital Center, changed the official capacity of Base Hospital No. 31 from 1,200 beds to 700. All surplus beds were removed from the few buildings remaining in operation, leaving only the allotted number in Hospitals No. 5, No. 7, No. 8, No. 2 and No. 3.

Capt. W. H. Thompson, American Red Cross, of Indianapolis, Ind., who had been in charge of all Red Cross activities since May 2, 1918, returned to general headquarters in Paris, Capt. T. B. Watkins assuming charge of affairs at Contrexeville. On the eve of his departure Capt. Thompson sent the following message to the Commanding Officer, Base Hospital No. 31:

Lt. Col. Edward VanDuyn,
Commanding Officer Base Hospital No. 31.

My dear Colonel VanDuyn:

I am leaving Contrexeville within the next few days and want to take this opportunity of thanking Base Hospital No. 31 for the many kindnesses which it has extended to me during my stay here.

I sincerely hope that when all of us return to America it may be my good fortune to see you and the other officers of your organization frequently. The associations which have been formed here have been exceedingly pleasant to me. I shall always have a deep and kind interest in Base Hospital No. 31.

During the eight months in which I have been in Contrexeville I have had full opportunity to observe the work of your hospital and it gives me a great deal of pleasure to be able to say that your organization has rendered loyal and efficient service and has made a record of which every member of it may well be proud.

With my kindest personal regards, I am,

Sincerely,

(Signed)

W. H. THOMPSON.

Official History, U. S. A. Base Hospital, Number Thirty-one

During the eight months Capt. Thompson spent in Contrexeville the American Red Cross accomplished many great achievements in its efforts to make more comfortable the life of patients and convalescents and the personnel of the hospitals. He succeeded Capt. Lawrence Hitchcock of Cleveland, O., who because of his success in starting the work at this center, was called to Paris to assume direction of American Red Cross work in hospital centers.

Sgt. 1c Walter S. Pritchard was transferred to Medical Storage Station St. Sulspice, Base Section No. 2, pp. 158, S. O. No. 10, Hqs., S. O. S.

Funeral services for Sgt. Reginald V. Taylor were solemnized after the Sunday morning prayer service at the English Church. Chaplain William C. Press officiated. The detachment marched to the snow-covered burial plot where committal services were held.

Jan. 13: Sixteen nurses responded to a call for volunteers for further service with the American Expeditionary Forces, and left, per tel. Inst. Hqs. S. O. S., A. E. F., for Treves, for duty with the Army of Occupation. The detachment included: Bertha Boyd, Katherine Corcoran, Grace L. Cotton, Ellen F. Cramp, Anna B. Davis, Lillian Johnson, Frances King, Augusta Morse, Helen Riordan, Margaret MacDill, Lilly Anderson, Margaret Herr, Alma Jones, Marie Watson, Nell Notestine and Edna Bousfield.

Jan. 14: Capt. Ralph S. Stryker was transferred to Hospital Center, Bazoille, for temporary duty, per telegraphic instructions, Chief Surgeon, S. O. S.

Jan. 15: Capt. Lawrence R. Hill was transferred to Base Section No. 1.

Jan. 17: Capt. Frederick J. Bierkamp, who had been on detached service with Base Hospitals No. 66 and No. 21 was returned to duty with Base Hospital No. 31. Following several weeks with Base Hospital No. 66 he was transferred to Base Hospital No. 21 at Rouen, then serving the British. Capt. Bierkamp was placed in charge of eye, ear, nose and throat department, where the work was exceptionally heavy. Convoys were received every day, bringing cases with wounds about the eyes and ears besides a fair proportion of civil practice of those parts. Patients were for the most part British at first, but later there were many patients from the 27th and 30th Divisions.

Jan. 17: In answer to a call from Base Hospital No. 90, twelve nurses were assigned to duty at that Base at Chaumont, per telegraph instructions 429 Hqs. S. O. S., A. E. F. The list included: Grace Merrill, Lena Hurd, Margaret Joyce, Delia Cornicote, Laura Reynolds, Mary P. Wight, Helen I. White, Elizabeth Dewhurst, Katherine Cassidy, Edith Hadsall, Marguerite Findlay and Louisa Cramp.

Official History, U. S. A. Base Hospital, Number Thirty-one

Jan. 18: The following men were transferred to Base Hospital No. 90, pp. 1, S. O. 78, Hqs. Hospital Center A. P. O. 732, dated Jan. 17: Pvts. 1c Joseph H. Lloyd and Rhodes C. McCall and Pvts. Robert M. Dazzo, Volney B. Dortch, Tillman L. Jones, Sam Levin, Harry J. Maloy, Dennis J. Meehan, Floyd E. Newton and Frank W. Travers.

Sgt. 1c Lloyd A. Mines was promoted to the grade of hospital sergeant, as of January 13, per 6th Ind., Chief Surgeon, Hqs. S. O.S., A. E. F.

Jan. 20: Capt. John U. Buchanan was transferred to the 26th Division with orders to report to the Commanding General for assignment to duty with the Medical department.

Jan. 23: Major H. A. MacGruer, Major George S. Britten and Lt. Charles H. Moses were relieved from further duty with Base Hospital No. 31 and ordered to report to Commanding General, Angers, for return to the United States. 2nd Lt. John M. Fraser was transferred to Base Hospital No. 99 for duty as mess officer.

Jan. 24: Lt. Col. Rukke having been ordered to report at Hospital Center Mars-sur-Allier as commanding officer, Lt. Col. Edward S. VanDuyn was relieved from duty as commanding officer of Base Hospital No. 31, to become commanding officer Hospital Center. Major John L. Washburn resumed command of Base Hospital No. 31.

Jan. 25: The work of clearing those buildings not occupied by patients practically completed, the first shipment of medical supplies to the concentration depots at Is-sur-Tille was started. The first consignment of five cars was the initial evidence that the hospital was to be abandoned within a few days. The entire command except those on details still in operation joined in packing medical supply materials for shipment, five carloads being hauled to the tracks during the night.

Jan. 26: Four nurses who had been on detached service with Evacuation Hospital No. 4, at Treves, Germany, as members of the Army of Occupation, returned for duty at Base Hospital No. 31. They brought with them copies of a citation from the Commanding General of the American Expeditionary Forces, for "Heroic conduct on November 2, 1918, when Evacuation Hospital No. 4 was shelled by enemy artillery." Among the nurses mentioned on the general citation were Miss Minna T. Meyer, Miss Cassie A. White and Miss H. Victoria Robinson. Miss Grace Singer was ill in another hospital on the occasion of the bombardment. The shelling occurred during a period of great activity on the Argonne front. When the safety of patients under their care seemed endangered these nurses, with others, placed their patients in stretchers and helped carry them into fields, dugouts and other places of possible shelter, with seeming disregard for their own danger. The Citation:

Official History, U. S. A. Base Hospital, Number Thirty-one

GENERAL HEADQUARTERS
AMERICAN EXPEDITIONARY FORCES

12, December, 1918.

From: The Adjutant General, American E. F.

To: Commanding Officer, Evacuation Hospital No. 4 (through Commanding General, First Army)

Subject: Heroic Conduct of Nurses.

1. It is with the deepest gratification that the Commander-in-Chief directs me to express to you and to the nurses listed below, his great pride in their heroic conduct on November 2, 1918, when Evacuation Hospital No. 4 was shelled by the enemy artillery:

2. It is another page added to our Nation's history—a page brilliantly illuminated by the bravery of our American women in France.

3. The Commander-in-Chief further directs me to say to you and to your nurses that he is proud of each one; and their deeds will be added to the annals of the American Expeditionary Forces.

By command of General Pershing:

J. A. ULIO,
Adjutant General.

Jan. 27: Capt. W. E. Muns, who had been Sanitary Officer, Base Hospital No. 31, was detailed Sanitary Officer, Hospital Center.

Jan. 28: Pvt. Samuel E. Hinkley was evacuated to Hospital Center at Bazoille for ultimate evacuation to the United States.

Jan. 30: All remaining medical patients were evacuated to Base Hospital No. 23, at Vittel, ending the business of that department. Hospital Building No. 5, Hotel Martin-Aine, was closed. Statistics, printed in full elsewhere, show that the Medical Service treated 3,413 cases embracing 115 diseases, the total hospital stay for which was 84,369 days. The average stay was 24.72 days. The percentage of cases returned to Class "A" duty was 64.4%. The death rate was 01.3% and 34.3% were otherwise disposed of, by evacuation, transfer or classification for limited duty.

Feb. 1: The following promotions were made, effective this date: Sergeants to sergeants first class: Frank E. Moore, Moses E. Kaletzki, Lee J. Pelen and Fred C. Lewis. Privts. 1c to sergeant: Alvin L. Smith and John M. Thornton. Corporal to sergeant: Hazen L. Becker. Private, first class, to corporal: William J. Dee. Private L. M. Gale was made private first class, and with Pvt. 1c A. R. Morrow surgical assistant. The following privates were made privates first class: Daniel P. Cady, Charles B. Wakefield and Claude E. Beaumont.

Feb. 2: By order of Commanding Officer, Hospital Center, Base Hospital No. 31 was declared abandoned and orders were issued for the immediate preparation of all buildings for return to French authorities. The few patients remaining under treatment, except those cases among the personnel which would require limited convalescence were evacuated to Hospital Center at Bazoille and the work of closing the hospital was begun. The summary of cases treated, as furnished by the Registrar's office:

Official History, U. S. A. Base Hospital, Number Thirty-one

AMERICANS

Admissions

For Disease:

Officers	169
Enlisted Men	3037
Others	95

For Wounds:

Officers	153
Enlisted Men	3247
Others	2

For Gas:

Officers	65
Enlisted Men	1130
Others	3

Total Admissions

Officers	387
Enlisted Men	7511
Others	100

Returned to Duty:

Officers	198
Enlisted Men	3217
Others	1

Evacuated to Other Hospitals:

Officers	168
Enlisted Men	3932
Others	2

Died:

Officers	5
Enlisted Men	116

Allied Patients

Number of Admissions:

For Disease	256
For Wounds	508

HOMeward BOUND!

The hospital officially closed by order of the Chief Surgeon's Office, the work of dismantling wards and otherwise preparing for the return of the personnel to the United States was begun in earnest on February 3, 1919. The events of the succeeding six weeks, up to March 13, when Contrexeville passed into more or less glorious memory, were strenuous in that much manual labor had to be done; trying in that anxiousness to be gone increased with every day; enjoyable because every effort was made to mix sanctioned pleasure with the necessarily pressing industry.

Because much of the usual routine work was no longer necessary the entire scheme of details was changed. Orders from general headquarters required that all buildings be left in the same condition found upon entering the village. This order was disobeyed because compliance would have involved hauling many truckloads of dirt into the buildings. On the contrary—the hospital orders meant that every building be turned back to the French in immaculate condition. To that end every officer, nurse and enlisted man went to the task until building after building was cleared out. All waste was destroyed and all property assorted, packed and finally placed in box cars to be hauled to the great Intermediate Storage Depot at Is-Sur-Tille, there to be thrown into immense piles of salvage with an unknown and exceedingly dubious future.

Not a day passed without its rumor that Base Hospital No. 31 was going to start home on such and such a date. "Authentic information" from this, that or the other source was positive that the unit would leave for the coast on the following Tuesday or Wednesday. The four units in the center rivalled each other in setting dates for the departure of each, and each was sure to leave before the other.

That there should be no delay occasioned by failure to be ready, there was no stopping until each of the buildings which had been used as hospital, barracks, store house, or work shop had been cleared of all U. S. Government property. Only two buildings were retained until the end, the others being turned over to the French as soon as their contents had been removed and the rooms cleaned out with the thoroughness that the United States Army required. The Nurses' quarters were abandoned a few weeks before orders were received and the women moved to the upper floors of the Hotel Souveraine. The enlisted men gave up the various buildings which had been barracks and moved into what were undoubtedly the most luxu-

Official History, U. S. A. Base Hospital, Number Thirty-one

rious soldiers' quarters in all France, on the upper floors of the Hotel Etablissement. The mess hall and kitchens had been moved from the Hotel Continental when that place was abandoned, making the Etablissement a complete "hotel" for the use of the enlisted personnel. The "hotel life" was enjoyed to the utmost. Hotel du Parc was maintained for the officers until just a few days before final orders were received, and Villa Plaisance, which was leased directly by officers living there, was in service until the very end. When "sailing orders" were received on March 11, only the Souveraine and the Etablissement remained to be cleared away.

During this period there were many changes in the personnel. Transfers came through, for which requests had been made before the prospects of an early return to the United States were bright. Opportunities to remain in France for work with the Y. M. C. A. and other welfare work attracted some and many of the officers and men chose to remain in the American Expeditionary Forces for the purpose of attending school under the auspices of the United States Government. Some of the officers who no longer were required for duty with the hospital were transferred to other stations. Chaplain Press was ordered to join the Army of Occupation in Germany. Capt. Brant and Capt. Borden were transferred to the Hospital Center at Savenay, supposedly for immediate return to the United States.

Although effective February 17, it was not until several weeks later that many of the officers were notified of their advance in grade. Captains who had had no promotion during the preceding year were advanced to the rank of major and lieutenants became captains. Their advance had been long delayed and brought only the satisfaction that was to be found in returning to the United States with a higher rank.

Although most of the officers and men were exceedingly anxious to return to the United States to resume their civilian life with the least possible delay, there were those who took advantage of the opportunity to attend the government schools. Major Charles C. Wolferth and Capt. Everett R. Thomas elected to go to England for a three months' post-graduate course at some large English medical college. They left during February. On March 2 a number of enlisted men were transferred from the unit to attend school in England and at various French institutions. This list included the following who went to England: Sergeants Sexton, Vanderschouw and Smith, Mechanic Irwin, Cook Seifert, and Privates 1c McBride, Morrow, Parker, Thomas and Ripple. Six soldiers went to Toulouse, as follows: Sergeants Wallace and Carlson, and Privates 1c Artz, Hickman, Oot and John. Sergeant 1c Eberling went to Montpelier and Sergeant Johnston went to Marseilles University. Reports from all of these men received after the remainder of the unit returned to the United States proved, for the most part, that the venture had been entirely worth while. Evidence is found in a letter written by Art Parker, in which he said: "Deac Morrow and Bill McBride are in London, Vanderschouw and

Official History, U. S. A. Base Hospital, Number Thirty-one

Joe Seifert at Edinburgh, Art Thomas at Bristol, Smith and Sexton somewhere in Wales, and Jay, Rip and myself here in Glasgow."

A number of enlisted men, who had been attached for duty at various times, were transferred to other units for further service in France. Included in this list were the following, who left on February 20 to join the Hospital Center at Toul: Privates F. R. Davis, Foster, Hanson, Kaluzny, Opasinski, Pilachowski, Pace, Paquin, Payne, Pearson, Pizzuto, Remollino, Richie, Ritter, Roark, Rodgers, Rohrer, Ryan, Turner, Nichols, Froese, Meyer, and Corp. Steines. The following men were transferred to the First Depot Division at St. Aignan on February 17th: Privates Kemper, Leicht, Royer, Wolff, Woodruff, Gale and Clinkscales.

Sgt. 1c Frank E. Moore, who had been in charge of detachment paper work, was transferred to the Y. M. C. A. on February 19. Pvt. 1c Jesse E. Cantor was transferred to general headquarters, interpreters corps.

After the bulk of the work of cleaning house had been completed, every opportunity was taken to send members of the personnel away on leave. Trips to the front lines were frequent and almost every soldier was permitted to go to the leave areas at some time during the last six weeks at Contrexeville. One enlisted man was given a pass to England and others went to various places on the continent not included in the regular leave areas. But even such privileges did not materially alleviate the strained conditions under which all worked. There was one great question on the mind of almost every one: "When are we going home?" There were times when men looked at one another to see if evidences of insanity could be discovered—so tense was the situation. It was a task to remain in good humor and the least friction tended to rupture what good nature there was in camp. No one seemed to know why Base Hospital No. 31, which was the thirteenth American hospital to reach France, should be held back while other units with less than a year's service to their credit were being rushed to the States.

Recognizing the strain, authorities did all within their power to remedy circumstances. Dances for the nurses and enlisted men were sanctioned and two such functions each week, one at the Red Cross hut and the other at the Nurses' Home, brought welcome relief. The parties were made the more enjoyable by the generous hospitality of a most genial hostess, Miss Sue Austin Wilson, Chief Nurse.

There was little consolation or relief found in the departure from Contrexeville of Base Hospital No. 32. That unit had ceased to function several weeks before Base Hospital No. 31, and had gone through the same process of housecleaning. When moving orders were received—a few days earlier than anticipated—all buildings were turned over to Base Hospital No. 31, together with a considerable amount of quartermaster and medical supply property. There was a large delegation at the station, including some of the nurses, to say good-bye to the Thirty-two boys. The send-off

Official History, U. S. A. Base Hospital, Number Thirty-one

was highly demonstrative, but after it was over a heavy curtain of gloom covered the valley. There were those who were determined that Base Hospital No. 31 never would get home and there were others who saw in the departure of the other unit an intention, at least, to close the Vittel-Contrexeville hospital center. Nor was there any great enthusiasm the next morning when, on examination of the buildings turned over, it was found that policing had not been as thorough as desired and details were necessary to properly police grounds and buildings.

It was in this manner that time crept on—each day longer than the one ahead of it—until finally, on March 11, orders were received to prepare to move. All equipment except that which was absolutely essential to the life of the camp had been shipped. The nurses were given orders to leave Contrexeville on the morning of March 12, and during the preceding day everyone was put to work helping the nurses in their final housecleaning. Not until well past midnight was the word given that the last trunk had been packed, the last bedding roll strapped up and the last batch of fudge consumed.

The command turned out earlier than usual the morning of the twelfth and, each loaded down with the hand baggage of his "best girl," the boys made their way to the station to await the morning train to Paris, which was to carry the nurses, accompanied by Capt. E. V. Sweet and Sgt. 1c Moses E. Kaletzki, to LaBaule, their designated destination. After so many weeks of waiting, it seemed almost impossible to grow enthusiastic over the departure of the nurses. It was the first sure indication that, at last, the unit was on the way, but, somehow, no one seemed to realize the true significance of the spectacle. The cheers that sent that train on its way were not the lusty shouts of the care-free. They were the forced ejaculations of heavy hearted boys, every one just aching to get the word that would start the rest of the unit on the first lap of the journey to "God's country".

The nurses gone, the final clean-up was in order. It is inevitable that when women leave a building they had used as a home for even so much as a week, they should leave behind endless quantities of worn out wearing apparel, so-called souvenirs that wouldn't fit into the trunk, fudge pans and almost anything else to be accommodated within the scope of human imagination. Three large truck loads hardly sufficed to carry away all the rubbish—that is what it all became. In addition, the village rummagers found enough pieces of clothing, hats, etc., to supply the average French peasant family a life time. By noon the upper floors of the Souveraine had been divested of every semblance of American property. During the afternoon floors were mopped and windows washed and all of the building not used as offices and officers' quarters was made ready for return to the French on the following day. During the afternoon everything was removed from the Etablissement except the army cot and three blankets to be used for the

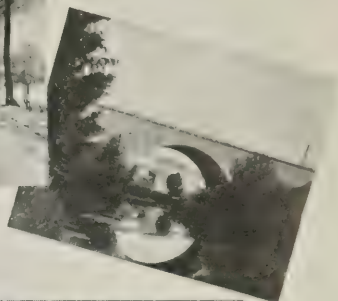
Official History, U. S. A. Base Hospital, Number Thirty-one

last night's sleep in Contrexeville, the barracks bags, and such government and personal property as was to be carried on the person of the soldier en route. In the offices all furniture was removed and necessary work was done on packing boxes, or shelves, or anything else that happened to be handy. All furniture that was to be returned to U. S. Army warehouses had been shipped and articles purchased from the French had been resold.

That last night in Contrexeville will live eternally. There was no tremendous hilarity. True—every cafe in town was busily engaged listening to the last farewells of the many patrons and friends among the boys. There were those, too, who had acquired a liking for certain Contrexeville brands that was not to be denied, but for almost everyone else it was an evening of mental activity. On each floor of the barracks there were gatherings from which emanated the muffled sounds of "I'll raise you three," and kindred noises. Elsewhere there were little parties at which the subject of conversation shifted from the date of return to Contrexeville on the pleasure trip all expected surely would come, to the possibility of getting a job back home that would make such a trip possible. There were not many lights burning late because every man appreciated the advantage of a full night's sleep before such a day as the last day in Contrexeville was destined to be.

Reveille cut short a fitful sleep a bit earlier than usual on the morning of the 13th and the entire command was down for the last breakfast in Contrexeville at 6 o'clock. That meal finished, instructions were given for the complete clearing of the barracks building. Cots were taken down; barracks bags got their final crowding; rooms were swept out and mopped; windows were washed and every scrap of paper or other trace of occupancy was removed during the next two hours. It was long before noon when every man in the command stood ready with every bit of his equipment handy. The barracks bags and all other paraphernalia to be shipped were carted to the freight cars and such quartermaster property as was to remain was turned over to the Group Quartermaster for his disposal. The kitchen was dismantled, and the one stove to be taken along was placed in the large American freight car which had been equipped as the kitchen for the three day trip to the coast. All the hogs remaining on the hospital farm had been slaughtered to furnish meat for the journey and the noonday meal in Contrexeville was a sandwich party.

Never has there been a longer afternoon than that of March 13, 1919. There was nothing to do but wait. The work was finished and the "troop train" was due to pull out at 5:30 o'clock. The hours preceding the last formation were depressing. The casual onlooker never would have guessed that all those sober-eyed men were on the eve of departure for the homes they had left many months before. The day rounded out a full year of service in Contrexeville for Unit "G". First call was sounded at 3:55 o'clock and there was a wild scramble for packs, which had been rolled earlier in



THE PICTURES

Upper left: Hotel Royal, at Labaule, where nurses were quartered while awaiting transportation to the United States.

Upper center: A winter scene on the road to Dombrot.

Upper right: The quiet pool and viaduct near the road to Outrancourt.

Middle: The American cemetery in Contrexeville.

Lower left: The Lorraine Thistle.

Lower right: A path through the French cemetery.

Lower center: Convalescents at a band concert in the park.

Official History, U. S. A. Base Hospital, Number Thirty-one

the day. It seemed many minutes after the last man had slung his pack, together with the many little musette bags, packages, etc., that each carried, before the snappy clarion sounds of "assembly" called the men together for the last formation in Contrexeville. All the natives had heard it and it seemed like a last formation for them, too, as they lined up, opposite the colonnade where the enlisted men awaited the last roll call.

Nor did everyone answer that roll call. Three men were being left behind to assist the quartermaster in the final transfer of property to the Group Quartermaster. They were Sergeants Wilbur and Thornton and Pvt. 1c King. Three others, too, were absent, illness making necessary their temporary retention in hospital at Bazoille, where they were sent early in the day. They were: Corp. McGinley, Pvt. 1c Robineau and Pvt. Cornelius.

A mighty cheer arose when, the roll call completed, the command "Right by fours—march" was shouted at the head of the column and passed on down by the platoon sergeants. It seemed as though a beacon light was thrown into the radiant face of every man in that line as the column swung out of the colonnade, into the park, through the high grilled iron fence and on out into the street that showed the way to the railroad station.

A story of the trip to the coast could not be complete without even a meagre description of the train that was to carry the officers and men of Base Hospital No. 31. Headquarters had been informed that "transportation" for the entire command, including officers, was on the tracks. Investigation found: one French railway carriage marked First Class, but of very dubious vintage; one fairly modern third class German coach, generously marked with the stripes indicating its condition of captivity, and a second German carriage of extreme age and highly questionable utility. The latter two were intended to carry the entire personnel, while the "First Class" coach was intended for the officers. It took but a few minutes to discover that to crowd the men into all three cars would be an impossibility, to say nothing of limiting them to two, and so Lt. Col. Van Duyn, who had returned as commanding officer of the hospital, took the matter in hand with the usual good results.

A steel freight car marked "8 Chevaux—40 Hommes", standing on the same track, was requisitioned and in a few minutes was swept clean. Mattresses were taken from another freight car bound for Is-sur-Tille (not without unofficial consent), and these were carefully piled in corners, for future reference. Blankets, too, were appropriated in like manner and twenty-three soldiers who favored the "side-door Pullmans" were luxuriously accommodated. Because the writer was one of the twenty-three, the story of the remainder of the trip will be the narrative of life in that freight car. With this expansion all the enlisted men were cared for, but the officers had no accommodations. Base Hospital No. 23, of Vittel, was moving at the same time and Lt. Col. Van Duyn waited until their train reached Con-

Official History, U. S. A. Base Hospital, Number Thirty-one

trexeville. Finding considerable space in cars assigned to the officers of that unit, Lt. Col. Van Duyn saw to it that room was made for all but five officers of Base Hospital 31. These five found space in the several freight cars loaded with baggage and freight, that completed the Base 31 train. Lt. Col. Van Duyn, Capt. W. H. Williamson, adjutant; Capt. H. M. Raub, detachment commander; Capt. C. O. Barney and Capt. M. A. Cain comprised the party of five officers who preferred to ride in the freight cars with the men rather than travel in the better accommodations of the other train.

After Base Hospital No. 23 passed on, amid deafening shouts, there was a long delay. It seemed there was only one locomotive in the vicinity and that had been used for the Vittel train. The interim was used to good advantage, however, many of the men arranging themselves as comfortably as possible for the tedious ride, while others spent the last few minutes in town chatting with the hundreds of natives who had gathered at the station to say good-bye to their American friends and to mourn the loss of the thousands of American francs that passed out of the Vosges valley in the jeans of the American soldiers.

There was a momentary hush when, after two or three false alarms during which the train was pulled out into the yards and then pushed back, the piercing shriek of the French locomotive whistle finally gave the signal that the train was on its way. But it was only momentary, for as the cars crept along over the many switches onto the main track every person came to a spontaneous realization that, after all, they were going home. There was a sudden fit of hand waving, screaming, shouting, laughing—in fact everything short of actual hysteria. And as the train glided around the turn that hid from view the railroad station and its environs, there was hardly a man who did not turn his eyes upward toward a bordering hill—the eternal resting place of those of our number who had gone to their last home before us.

And as the train left Contrexeville there was mingled with the joy to be found in the fact that, truly, this was a step toward home. No one was sorry to say good-bye to the town which had been the scene of his labors so many months, nor were there many hearts broken by the forced severing of relations with the natives. There was, however, a peculiar sensation of depression—an involuntary clutching around the heart.

In Box Car "K 471251" that feeling gave way to the loud, if not melodious strains of "Hail, Hail, the Gang's All Here" even before the plodding, old, copper-boilered French dinky engine had drawn its homeward bound human cargo half way to Martigny-les-Bains, a few kilometers away. Because the story of what happened during the next three days is to be centered on this car it is well, perhaps, to know who were the soldiers

Official History, U. S. A. Base Hospital, Number Thirty-one

privileged to ride in the most luxurious box car in transit. They were: Ben Cover, Hugh Cover, Ralph Fieger, "The Little Egg"—or Brownie Burt; "Gus" Wakefield, Gust Spong, Paul Hynes, "Weary Willie" Stewart, Harold Funkhouser, Paul Snead, Charley Wall, Ralph Kelly, Charlie McGlynn, Earl McCluskey, Earl Wirt, "Peaches" DeWaldo, Burt Lustig, "Tates" Onorato, Claude Beaumont, Harry Kallet, "Cece" Whitworth, Fred Eppley and C. H. Kaletzki. Their vehicle was the most luxurious box car in transit because they made it so. The mattresses which had been appropriated for the journey, had been piled around the side of the car and blankets were thrown over all, furnishing comfortable seats for those who chose to sit around and gossip about this and that. Packs and overcoats were hung from the steel roof supports and musette bags—some which had mysterious contents—were placed where they could always be available in moments of weakness during the strenuous journey that was to come.

Long before darkness overtook the train as it made its laborious way toward the junction of Merrey, that carload of youth became a mass of jollity. "Tates" brought his banjo from its hiding place, and with his tales of "Willie the Weeper," and sundry other bits, warmed the "gang" into a mirthful and more or less musical mood—and there was no restraint. When at last the evening shadows deepened and the strain of the day of anxious waiting began to tell, there was an eagerness to be off to bed. Mattresses were taken from the sides and spread over the entire floor, and the men began to arrange themselves in a manner that would give the greatest comfort to all. In one end of the car four mattresses accommodated five men, stretched at full length, their heads resting on the upturned edge of the "tick". At their feet, another series of four mattresses were placed, the upper ends being tilted against the edges of the first set, thus providing an ample head rest, in addition to a certain amount of assurance against an untimely thrust from a stray pair of "hobs" that might get beyond control during the "wee sma' hours". In the back tier were Lustig, Onorato, De Waldo, Kelly, and Wirt. In the second series were Eppley, Spong, Whitworth, Kallet and Kaletzki. Three mattresses in opposite direction, in front of one of the side doors, accommodated Ben and Hugh Cover and Stewart, while the other half of the car, was arranged much in the manner of a fan—so much so in fact that in the center was a veritable community of feet.

As darkness hushed the last sounds of "Get your foot out of my ear"—or, "I wonder how long we'll be at the base port"—or, "Gee, I forgot to get my laundry"—the dim light of the broken oil lamp that swung in the half open doorway cast its flickering rays over the countenances of twenty-three boys, who slept the sleep of happy fatigue and dreamed of the welcome they would get—back home.

What happened to that train during the night no one ever knew. The boys in "K 471251" were too tired to be interested. Suffice it to say that

Official History, U. S. A. Base Hospital, Number Thirty-one

somewhere along the line the little copper dinky gave way to a locomotive that knew its way—and made some speed on its journey to Is-sur-Tille, where the command was awakened—and they had to be called—for breakfast at 6 o'clock. The train had been lying in the French yards at that immense railroad center for some little time before the mess call was passed down the alley onto which the doors opened, and the cooks had been busily engaged in their task of making good on the first meal of what they had promised would be the most elaborate mess ever served troops in transit. Nor did they fall down on the job. Their promise was no exaggeration, because breakfast that morning consisted of oranges, two soft-boiled eggs, bread and jam, and coffee, with milk and sugar. And oh! what a breakfast that was—for the Army—and served from a mess car!

Because the French railroad authorities, seemingly, knew not of its presence, or cared even less, the train remained in the yards at Is-sur-Tille all the morning of the 14th. Every conceivable means of entertainment was employed to keep the boys in good humor. In every car—more—in every section of every car, there could be heard the mystic exclamations: "Check"—"I'll raise you one"—"I'll call you"! "Chappy" Sample, with his newest English importation was handling plenty along side the track. Strangely enough, the Army's national game was not represented. But the time passed quickly, and call for dinner found the boys just as hungry as though they had done a real day's work. This is what they got: Cold roast pork, hot baked beans, pickles, bread and butter, coffee with sugar and milk, preserved peaches and fresh grapes.

Soon after noon someone in authority discovered the train, and another French locomotive, manipulated by French engineers who had learned—it was no effort—to like American cigarettes, hauled the train out of the French yards over to the other side of the wide expanse of steel rails to the American yards, where the information was given that perhaps the train would pull out some time that afternoon—and perhaps not. It all depended. No one seemed to know on what. But the afternoon was not wasted. Like all American institutions, and unlike so many French, there were places nearby where the boys could wash—and they were happier for it. There was more room for the tom-foolery that was the only outlet for pent-up energy, and there were friends among the American troops engaged in the yards. Some of the boys met acquaintances of their days "on the road" back home.

Everything was joy despite the unexplained delay, until, late in the afternoon another troop train, headed in the opposite direction pulled into the yards. From it there emerged American officers—with long faces and generally disgruntled manners. They recognized in this party fit subjects for their gloom dispensing and so they offered the information that only a few days previous they, too, had gone the way No. 31

Official History, U. S. A. Base Hospital, Number Thirty-one

was going. They read the "Homeward Bound" the boys had scrawled over the sides of the car and sneered:

"Homeward Bound!—Huh!—That's what we thought. But they got us down to the base port, turned us around and started us back to Germany for further service with the Army of Occupation. They're doing that to all hospital outfits. You haven't got a chance in the world of getting out of this country as a unit. They'll split you up sure as fate when you get there."

Supper of roast beef, hard boiled eggs, soup, and bread and jam, took out of the boys' mouths the bad taste left by that line of chatter, and as evening gathered not even the habitual kill-joys remembered what they had heard about "Homeward Bound—Huh!"

It was after 8 o'clock when, finally, the train was placed on a siding near the railroad station to await arrival of the "Cannon-Ball" or American special that was to carry the men over the next lap of the journey to the Atlantic. It was while waiting on this siding that an incident occurred which proved all over again that France, after all, is a small place. "Mike ———", whom one man had not seen since a certain farewell party back home months previous, stumbled along the ties, his musette bag over his shoulder and his ever-present smile on his face. He saw the "K-471251" with all its markings of Youngstown and Syracuse. He remembered and asked——. The reunion was joyous.

The "Cannon-Ball", drawn by a huge Baldwin locomotive, manned by American railroaders who knew how to make her travel, lived up to its name that night. The boys of "K-471251" retired in good season—when the dim rays of the oil lamp failed to shed sufficient light to make the spots visible. The lantern was not in place when the train stopped at Marcy the next morning. The "Cannon-Ball" had followed the tracks religiously and without hesitation, despite the many fancy little twists and turns. During the night the lamp had been jerked loose in the swaying of the car, and fell, with a crash, out of the side door of the "Pullman". But the swaying was, to the boys in that car, like the swing of a cradle, and all slept the sounder for it.

The morning atmosphere was crystal clear and the sky was shiny blue when the train stopped to take on water and to give the men a chance to breakfast in the yards at Marcy. The stay was short, but all were impatient to be on their way, and breakfast of cooked cereal and other goodies had to suffer for it. All that day the "Cannon-Ball" rushed on into a part of country hitherto unseen by men of Base Hospital No. 31. All sorts of American camps were passed, including the famous Intermediate Storage depot at Gievres, where there were to be seen miles upon miles of American-built railroad yards, American roundhouses and locomotives and American warehouses, near which were piled hundreds of thousands of dollars' worth of American munitions and merchandise.

Official History, U. S. A. Base Hospital, Number Thirty-one

As the train sped on through all this country the side doors were crowded three and four deep with boys eager to take in all the wondrous scenery, clothed in the great beauty of the early springtime. While approaching the city of Bourges the men saw, for the first time, the quaint cliff dwellings for which that section of France is famous. There was something intensely romantic about the little doors and windows cut into the side of the rocky hill, and it seemed incredible that real smoke was issuing forth from the chimneys that seemed to grow like trees along the hillside. What a spectacle it was to see a goat grazing in the grass that adorned the roof of his master's abode! Ancient strongholds and castles which had not been spoiled for the sightseer by modernization were seen here and there along the route, through the famous vineyard regions of that vicinity.

A thump-thump-thump-thump—with every thump a rattle and shake—brought the occupants of “K-471251” to their senses with a rude abruptness early the following morning. After having been shunted about from one place to another during the night, the train had been backed onto a siding alongside the trainshed at Tours, to await daylight and the next fast freight for Nantes, which was to be the immediate destination of the convoy. It was while being drawn from the siding that “K-471251” developed its bump, that car, the last one in the train having jumped the track. But there was no alarm. The occupants were too sleepy to ascertain the cause, and then forgot all about it when the train stopped. They went back to sleep. About an hour later a detail arrived to tell the “Pullman” riders that breakfast, consisting of fried eggs, etc., had been served and that the train was to leave in five minutes. There were those who got breakfast—in that car—but they were few.

Just as the train was about to pull out a yard man discovered what few in the car had suspected—it was off the track. To hold a scheduled train for a derelict was out of the question; nor was there time to move the chattels to another car. There was only one solution—and that failed to solve. The car, with its occupants, was to be left behind. If “Mert” Porter had been in that group there might have been stories of how it would never see the remainder of the unit again. But optimism and good cheer had been the slogan of “K-471251”. Indeed, there was no small amount of comfort found in a good shave with hot water “bought” from the antiquated engineer who tended the boilers in the station house. Ablutions completed, a detail was left with the car, charged with the duty to prevail upon the French to replace the car in time to catch the noon train for Nantes. The remainder of the group left for a “trip around Tours”. But Sammy Holt and “Abdul” Farran, who had been left behind with the news that the group had been stranded, also brought the information that the streets of Tours had been closed to itinerant American soldiers. The “trip” then consisted merely of a walk across the public square to the enclosure in which was located the canteen and hut of the American Red Cross. Because Army

Official History, U. S. A. Base Hospital, Number Thirty-one

regulations required it, a detail of Military Police accompanied the party to the gate of the enclosure, and, on leaving, gave the information that only while under proper escort could the men return to their car.

But the hut was a cheery sort of place—like all Red Cross huts—and the prospects of breakfast on cakes and chocolate was not the least displeasing. The usual invisible sign “Welcome” was hung all over the place, and it was not difficult to see that the kitchen was well stocked. A splendid hot lunch was served at 11.30, and a large box of sandwiches was packed “for future reference”. The boys were well supplied when they started back to their “parlor car” just in time to be picked up by the noon train for Nantes.

“Yes, you’re going through to LaBaule”, the men were told when the train stopped at Angers, the first large town on the road from Tours to Nantes. The R. T. O. stationed there had checked the early train through and he was sure they were going straight to LaBaule and not to Nantes and St. Sebastien, where it was heard, Base Hospital No. 32 was still awaiting orders to start for home. The wild enthusiasm born with the receipt of that “news” meant that all available food supplies in Angers (at least at the station) were drained, and then there was not enough. Rollicking song filled the remainder of that journey. It was a Sunday afternoon, and at each station along the way—and there were many of them—there were large gatherings of the quaintly dressed Normandy folk. At each such gathering place there was a special concert, the “Madalone” or “Marseillaise” being the offering. It was everywhere apparent that no one in that car missed the rest of the original convoy, and no one seemed to care much if the “K-471251” ever caught up with the party.

It was after 8 o’clock when the train pulled into Nantes. While no one had really believed the information given by the R. T. O. at Angers, no one entirely doubted his word, and so no one was ready to get off when the car stopped and Sgt. Pelen reminded the boys they were still in the army and yelled out: “All right—everybody out!” A detail had been left behind to meet the “lost detachment”, with Sgt. Becker in charge. Baggage removed from the hangings, where they had been undisturbed during the entire journey, and packs slung, the detachment bade farewell to their tourist car and made for the Red Cross hut, where supper—a good hot supper—was served, as a bracer for what was coming. The R. T. O. at Angers had been misinformed, and St. Sebastien was the destination. The remainder of the detachment had gone there earlier.

Never were five kilometers longer than they were that night. The evening air was calm, but, for the season, a bit warm. If there had been anything lacking in the trip down from Contrexeville it was exercise and now the absence was felt as the small detachment plodded along over the almost innumerable bridges spanning the many branches of the River Loire

Official History, U. S. A. Base Hospital, Number Thirty-one

that dissect the city of Nantes. Laden down with the always too heavy packs and rolls, musette bags, overcoats, blankets and other things, the soldiers felt the need of frequent rest along the river banks. Once they stopped to glance along the opposite shore, lighted by hundreds of electric lights on the tops of the many buildings. It was the first evidence of return to big cities yet seen. But with all the attractions the walk was long. It took more than two hours to cover the distance—and it seemed longer.

St. Sebastien, or, rather, that part of it used for billets for Base Hospital No. 31 was sound asleep. Sgt. Becker led the detachment around to the headquarters building, and the shack next door, and after a minute's search announced that as many as wanted to could sleep on the ground, or on the pile of barracks bags in a room to which he pointed.

"There is another billet about half a mile down the road", he said, "but, I don't know if we can get in there—and besides its getting pretty late."

But the men of Base Hospital No. 31 had had little occasion to sleep on the ground and this was not the time to start, so the journey to the other billet was taken up by all but a few. These had found satisfactory temporary quarters. It was with difficulty that the caretaker was aroused, when the billet was found, and it was with greater difficulty that the exact nature of the accommodations was determined by the dim light of the all too few candles which had been brought along. But that was to be home—and home it was. Some were too tired to unroll packs, and huddled together on the floor of the two rooms on the first floor and in the garret. All other space in the building had been reserved. Despite efforts to dig holes in the wood floors to accommodate hips and shoulders, morning found the building intact and limbs sore.

St. Sebastien had been in use as an American billeting area since the earliest days of the American Expeditionary Forces. Incoming troops, which landed at St. Nazaire, were quartered there, awaiting transportation to the interior. Now that demobilization was in progress, large numbers of individual units were gathered at St. Sebastien, there prepared for embarkation and grouped to make full convoys across the Atlantic. When the gathering of base hospitals was begun this area, together with similar areas surrounding the city of Nantes, was pressed into service. When Base Hospital No. 31 arrived more than thirty other base hospital and other medical units were in the same vicinity.

The village of St. Sebastien will be remembered because of its scenic attractions as well as for the many personal associations and good times enjoyed there. It was characteristic of Normandy in its architecture, its language, its people and its wines. The buildings occupied by Base Hospital No. 31 were widely separated. Headquarters was in a villa owned by one of the wealthiest residents of Nantes. The expansive grounds repre-

Official History, U. S. A. Base Hospital, Number Thirty-one

sented a considerable investment. The rarest of vines and other flora were found there, all cared for in as much detail as might be employed in the most extravagant American estates. All but a few rooms of the building were turned over to the unit. On the first floor one large room was to be the headquarters office. Opposite the hall, a small kitchen was to serve a good purpose in feeding the officers who had the use of the well furnished rooms on the second floor. The third floor, or garret, comprised two large lofts, well adapted for barracks. The non-commissioned officers had seized it as the most desirable of a rather poor assortment of billets.

Another large estate next adjacent accommodated the mess shack, in which had been placed a large army range. There was no mess hall. A long table was used as a serving counter, before which the men passed, their mess gear extended to get their rations of the better than average food that was dispensed there. To find a place where one could eat in comfort was impossible. Later another table was built, with a tarpaulin thrown over the frame shed built around it. In rainy weather this was a haven for those who could crowd in. The others stood with tin hats and raincoats, out in the open while the rain cooled the soup or coffee and made the slum, or whatever else was served on rainy days, a little more diluted. And it rained frequently. On sunny days it was a pleasure to stand beneath the trees and eat, and many found comfortable little places where they could sit in picnic fashion. A novel arrangement of the little branches of some shrubbery supported the mess gear of one soldier who discovered the combination, and still another could be found eating from his meat can perched in an arch of one of the low branched trees, of which there were many.

The large and queerly constructed building on that estate housed many of the men. Three other buildings, also, were used. At no time, however, could it be said that the quarters were comfortable. The first day after arrival the men were issued bed ticks, and were shown several bales of cork and paper shavings, with which to make for themselves so-called mattresses. It soon became apparent that none of the men were accustomed to sleeping on cork, and the next morning all were convinced that French cork was good for only one thing—to stopper champagne bottles. As a mattress it was a fine pile of lumber. Its only virtue was that the cork was a protection from the dampness of the floor on which it rested.

Despite the many hardships the billet life was not beyond endurance. The last group that elected to walk the extra half mile was rewarded with the best quarters in the village. Sgt. Cover, the ranking non-commissioned officer, perhaps will never forget the "comfy" French bed to which he fell heir. He was the only "non-com" in the command to be thus favored. His brother, Ben, slept on the floor along side, as did Earl McCluskey and Ralph Fieger. In the next room were DeWaldo, Wirt, Onorato, Kallet and C. H. Kaletzki. Spong, Burt, Whitworth, Eppley, Stewart, McGlynn, Kelly, Wakefield, Wall, and McGlynn lived in the garret. The other barracks

Official History, U. S. A. Base Hospital, Number Thirty-one

had their good times, but this group staged more "parties" successfully than any of the others.

It was these parties that made life livable. For most of the command there was only one task—get ready for the general inspection. Of course, there were other details. The rules of the area required exceptionally strict policing of quarters and grounds. It was reported that some unit had been detained in France because it had failed to do the proper thing at St. Sebastien. Nothing was too hard work for the men of Thirty-one when they thought of this prospect. Until the day of the big inspection, the mornings were filled with routine drills. In the afternoons trips to Nantes and nearby towns were in order. St. Sebastien and Basse Goullaine were the attractions in the evening, the little dance halls attracting not only those who wished to dance but those who enjoyed watching the exceptional gyrations of so-called pretty French girls.

Two days after the unit arrived in St. Sebastien, Major John L. Washburn, Capt. William H. Bunn, and Sgt. 1c Cyril P. Deibel returned from Paris, bringing with them copies of the citation which accompanied the medal with which they had been decorated by the French Government. Nurses Pearl M. Worley and Edith Hadsall were decorated at the same time, and the name of Miss Frances Kehoe was mentioned on the order which brought about the citation that carried with it the *Medaille d'Honneur, Republique Francaise*. The citation follows:

Republique Francaise
Ministere de la Guerre
Recompense pour Belles Actions.
Medaille d'Honneur
Au Nom du President de la Republique
Le Ministre de la Guerre a Decerne une Medaille d'Honneur en Bronze
au * * * * * Base Hospital No. 31 a Contrexeville,
A soigne les malades et blesses Francais avec zele et grand devouement.

This honor was a reward for the treatment afforded French soldiers and civilians treated in the hospital wards and clinics.

After a few preliminary tests, headquarters, U. S. Troops at Nantes, was informed that Base Hospital No. 31 was ready for its final inspection. There was some surprise at such an announcement because other units had taken a longer time. But, the date was set for the inspection of the command and its equipment. Clothes had been brushed until they were immaculate. New caps had been issued to all who wished them, and there was no stinting in the handing out of new clothing, shoes and other paraphernalia that would go to make the general appearance of the command all that was desired. Never were packs rolled more carefully than on the morning of that inspection. The inspecting major came and was subjected to the usual scrutinization on the part of those who sought to discover in

Official History, U. S. A. Base Hospital, Number Thirty-one

his makeup some trait that might suggest how hard he would be to please. It was decided he would not be easily satisfied and that word had been passed along to the men as they stood awaiting assembly .

At Contrexeville there had not been a great deal of time for formation drilling, but the appearance of the column belied this condition, as the men marched from the headquarters yard into the roadway, and on up to the highway on which the inspection was to take place. Swung into company front, the men stood their inspection of general appearance without "batting an eyelash". The inspector was well pleased. Next he called for a drill by the first platoon. He could not have chosen one better. Sgt. 1c Harry Gaskeen snapped out a varied assortment of commands with a precision that would have satisfied the strictest line disciplinarians, and his platoon answered every command in perfect style. As he remarked: "That will do", a smile of satisfaction stole across the Major's face. Little need be said of what a certain other platoon did in a similar drill. Suffice it to say "it got by."

The drill completed, the inspector called for the inspection of equipment. There was never a slip in the performance, and at the given command every pack was unslung, overcoats were dropped, rolls undone and the work of exposing to view the contents of those burdens proceeded. As the Major looked down the long avenue he saw layout after layout exactly the same. Every article was placed in just the proper position, and the three pairs of socks shown by every man were identical, as were the toilet articles opposite. Complete sets of these things had been procured from the Quartermaster in order that the inspection might be perfect. As he passed down the long aisle the Major had nothing but praise to offer for the showing made. Thoroughly satisfied, he turned the detachment back to the Commanding Officer, and was on his way. As he turned the corner on his way out the inspector stopped his car, beckoned to Sgt. Thomas and at some length praised the work of the detachment sergeant, his non-commissioned assistants and the entire personnel.

"Old General L——" with his entire staff of assistants had full sway in St. Sebastien during the three weeks that followed the inspection. There were rumors of everything imaginable, from the possibility of splitting up the unit, to the chances of going home on the same boat with the nurses who had been quartered at LaBaule awaiting transportation. In the effort to counteract the influences of this rumor agency the authorities were most liberal in allowing passes. Many of the enlisted men went to LaBaule for three-day leaves, and there was, apparently, no limit on the number of passes to visit Nantes. The attractions of that city were great and various. Its art galleries were well patronized as were the many other famous show places, including the castle in which the notorious "Bluebeard" was said to have been executed. One of the great factors drawing the men to town, however, was the fact that bath houses were scarce in St. Sebastien.

Official History, U. S. A. Base Hospital, Number Thirty-one

Bath house proprietors in Nantes even commented that American soldiers bathed too frequently. But Nantes was not the only outlet. Basse Goullaine and the many little road houses along the river front were the scene of parties the only reason for which was found in the necessity to do something to while away the time. And then, too, the fish were fresh and deliciously prepared; Monbazillac was a choice wine, and not too expensive—and there was some fun in hearing the mournful tunes of “We Won’t Get Home Until June.”

During all this time Lt. Col. E. S. Van Duyn was commanding officer of the unit. His generous policy was most thoroughly appreciated. He had been in ill health, however, throughout the stay in St. Sebastien, having acquired neuritis on board the freight car coming from Contrexeville and had been confined to his room much of the time. When an opportunity presented itself he withdrew as commanding officer, and left the unit, going to Brest to await transportation to the United States. Many of the other officers did likewise, some sailing fully two weeks in advance of the remainder of the unit. Major John L. Washburn resumed command upon the departure of Lt. Col. Van Duyn.

The four enlisted men, who had been sent to Bazoille from Contrexeville, returned entirely recovered from the ailments which had necessitated their evacuation. They were Corp. McGinley, Pvt. 1c Robineau, Pvt. Hobbs and Pvt. Cornelius. Sgt. 1c Harry R. McPhee, who had been evacuated as a typhoid patient in November, 1918, was found convalescing in the hospital center at Nantes, and application for his return to his original outfit was granted. Pvt. Samuel E. Hinkley, who had been evacuated from Contrexeville with the closing of the hospital, also found his way back to the command, as did Sgt. 1c Joseph L. Heffernan, who upon his return from duty with “Stars and Stripes” in Paris was assigned to the American University at Beaune as an instructor.

It was during the last week at St. Sebastien that word was received from the American Express Company that a package, contents unknown, addressed to Dr. C. R. Clark, was being held at the Paris office of that company. Assuming that possibly the Youngstown film, which had been on the way for many months, had been located, finally, Major Washburn detailed Pvt. 1c W. S. Day to Paris to get the package which, upon examination, proved to be the long lost film. Arrangements were made to have the picture shown on the screen at the Y. M. C. A. city hut in Nantes. The appended letter is ample evidence of the pleasure found in the display of that film the night before the unit was ordered to the coast.

Official History, U. S. A. Base Hospital, Number Thirty-one

MR. CHAUNCEY COCHRAN,
Youngstown, Ohio.

My Dear Mr. Cochran,—

After nine months of travel your splendid film arrived yesterday and was shown last night.

I had given it up in February, when Mr. Thompson, our Red Cross representative, made a thorough search in Paris for any trace of it, but three days ago I received a letter from the American Express Company stating they held a package sent by Mr. Brown, of Youngstown, to Col. Clark, and, surmising it was our long sought film, I immediately sent one of my men to Paris for it.

It arrived in perfect condition, and was shown at the large Y. M. C. A. theater last night. I think every man of the organization was there to see it except the one poor fellow left behind as guard—and you may be sure he was not a Youngstown boy. We all went down in four three-ton army trucks, 160 of us, as the hut is about three miles from our billets and the street cars stop running at 10 P. M.

I wish you could have been here to hear the ovation which greeted the pictures. Someone on the screen was recognized constantly, and the boys would howl out the names, and greet the familiar streets and buildings with a roar of joy, and when the street cars came into the diamond, it seemed as if they must board them—they would give the time it would take them to reach home on the different cars—and it all ended in a wild burst of cheers when Mr. Cochran stepped out of his car and bowed to them—for so it seemed.

It was a joyous, happy crowd that came home in those trucks—everyone singing—and everybody more thoroughly convinced than ever that Youngstown is the best if not the greatest city in America.

To make the whole affair complete we received our orders this A. M. to proceed to-morrow to St. Nazaire and we hope to sail about the 15th of the month.

My only regret was that the nurses did not have an opportunity to see the film, for they would have appreciated it fully as much as the men. But we shall bring it along with us, to give them the opportunity of seeing these truly beautiful pictures.

So it is my privilege to send you the thanks of our entire organization for the wonderful evening's pleasure you so kindly provided for us. With very best wishes for yourself and our many friends in Youngstown, I am,

Most sincerely yours,

J. L. WASHBURN.

On April 11, official notification was received for the final physical inspection of the command, which was a sure indication that orders to move within twenty-four hours would be received. On the morning of the 12th the Town Major's office issued instructions for departure from St. Sebastien at 11 o'clock. The train for St. Nazaire was to leave the station at Nantes at 12.30 o'clock. The remainder of that morning was spent in housecleaning because the Base Hospital No. 31 policy of a clean job was was not to be cast aside at this late stage. It was long before 11 o'clock that the entire command was ready, packs rolled and loaded together with all other property for transportation to the station. For once the command was going to march without heavy cargo.

American box cars, the floors covered with mud, without benches, or even straw on which to sit, were transportation for the several hours' run to St. Nazaire. The entire train consisted of base hospital units. All had the same difficulty, but all were going in the same direction and so no one seemed to care. All realized the River Loire flowed toward the Atlantic and they knew the train was headed with the current.

There was little thought for scenery on that trip—at least French scenery. Each soldier had his own vision, and each had his own idea as

Official History, U. S. A. Base Hospital, Number Thirty-one

to how long a stay was to be expected at St. Nazaire. It had been rumored that some units had been cleared inside forty-eight hours—and then again—there were others who had been in camp three and four weeks. When the train finally drew up along side the docks, and the large ocean-going vessels could be seen only a few hundred feet away, everyone lost sight of the element of time. There were American vessels, flying the American flag—and there were a lot of them. Why, those ships could clear the entire camp in three days—one's imagination dictated.

The long hike to Camp No. 2, under heavy packs, was tedious. The uphill grind soon became wearisome, but the men were relentless. They stuck to their plodding through the muddy road until at last the destination was reached. Camp No. 2, in appearance, belied the stories which had been sent to the United States, and returned in the newspapers. It seemed ideally arranged—and clean. There was an air of satisfaction when the boys found their barracks, brought out their mess gear and started away, on the run, for a late supper at the general mess hall. That night was spent in quite comfortable quarters. The low French type of barracks, with the four bunk units, were clean and not uncomfortable. But there was satisfaction in the knowledge that the stay was to be short. Before darkness word was received that Base Hospital No. 31 was to have its physical examination at 8 o'clock the next morning, immediately after which the command was to move to Camp No. 1. The office personnel worked all that night preparing papers because it had been reported a boatload was to be made up to leave within the next twenty-four hours—and there was a chance for Thirty-one to get aboard if all the necessary paper work was complete—and there was a lot of paper work to do despite the fact that all that, it had been supposed, was finished at St. Sebastien.

It would take an Irvin Cobb to do full justice to the inspection to which the men and officers were subjected. The scene was a single story building about 75 feet wide and 125 feet long. The entire front was divided into single door spaces, before each of which there stood a long line of men, when Base Hospital No. 31 arrived for its inspection. As each organization was called in there were hurried commands which started the removal of blouses, flannel shirts—and more, until, by the time each man passed into the building and down the long aisles, into which the interior was divided, he was stripped to the waist, his clothing clutched in his right hand; the top of his breeches in his left. At the end of each aisle stood two medical officers, each holding an electric lamp of high wattage. For the first officer each man held up his right arm and said "Ah!" while the electric lamp moved from the arm pit where it sought the elusive cootie, to the mouth where the doctors expected to find traces of some communicable disease. This operation required but an instant, and the soldier stood before the other doctor who examined the skin in search of disease, which might have escaped the dozens of inspections through which each soldier

Official History, U. S. A. Base Hospital, Number Thirty-one

had passed while in the billeting area. The next stop—if it could be called that—was before a table in a darkened passageway, where there sat an enlisted man holding an electric lamp with which he “read” each soldier’s undershirt as it appeared on the table before him. Passing on to the dressing room, a fraction of a minute was allowed for the readjustment of clothing and the place was cleared for the next contingent. The entire process had not taken three minutes.

Camp No. 1, about a half mile distant, was not unlike Camp No. 2 in general appearance. Once within the gates through which no individual passed without special authority, the first stop was at the “delouser”, an institution the fame of which had spread throughout France. Because it had been rumored that clothing which entered there came out much the worse for the experience, there was some reluctance to go through the “mill”, especially because cooties and their ilk had been foreign to the men of this command. But, routine was in order and the command prepared for what proved to be a novel and not entirely unpleasant “laundering process”. Packs were unslung and rolls opened. All articles of wearing apparel, except shoes and other pieces of leather, were to be sterilized, together with the blankets and such other articles which might serve as hiding places for vermin.

The large receiving room was divided into sections, each of which was lettered. On both sides of each section was a long bench, divided into seats, all of which were numbered. Every soldier was warned to remember the number of the seat used while undressing. The large trucks, with upright racks, carrying many nails and hooks, were pushed into place on the rails which occupied the center of the section, and on these nails all articles to be sterilized were placed, in a manner prescribed by a lecturer. Every precaution was taken to avoid undue wrinkling of clothes. Blankets were thrown aside, to be sterilized separately and soiled underwear and socks were put into a laundry pile. Carrying only his shoes and such valuables as had not been left with the guard outside, the soldier went into the large bathroom containing several rows of showers, placed his shoes on a shelf above the shower fixture and proceeded to dampen his hide when the showers were turned on for a moment. Large barrels of a special preparation containing soap and kerosene were well patronized by instruction, and the men returned to their showers to make quick work of their bath, which ended with a cold dash.

Leaving the shower room each man was handed a bath towel, and as quickly as he was dry he passed along a counter where underwear of uncertain size was thrown at him, together with a pair of socks. It was nothing for a man who needed a size 42 to swap with a fellow who wanted a size 34—but there was no time to give good fits—and everyone had some clean underwear, so nothing mattered much. Going on to another room, divided into sections corresponding with the receiving room, each man

Official History, U. S. A. Base Hospital, Number Thirty-one

was issued three freshly sterilized blankets, and took his proper seat in the correct section to await the return of the rack, which had been sent into the immense sterilizer which separated the two rooms. It was surprising to find that the only change wrought in the process was that the clothing came out sweet and clean—and with very few new wrinkles. The delouser was a huge success.

Another institution at Camp No. 1, which will have its place in history because of its great efficiency, is the mess hall in which the thousands of transient troops were served with average good food and without the slightest delay or disorder. The person responsible for its arrangement was little short of a genius. Its size can be judged from the statement that 5,000 troops could be fed in a single hour. Entrance to the mess hall was from two directions, lanes wide enough to accommodate four lines leading to opposite sides of the immense hall, thus providing eight mess lines to be served simultaneously. Eight tables carried food from which the soldiers were served as they passed rapidly along into the mess hall, where hundreds of tables provided ample standing room. The food supply was continuous, each server calling out as soon as his tray was nearly empty. A leather-lunged Negro, standing on the partition which divided the mess hall from the immense kitchens with their many ranges and warming stoves, shouted out the orders in this fashion: "Meat on three—bring it on!"—and it was no sooner said than done, for hardly before the server had emptied the pan of meat, a fresh one was at his elbow. Never was the line delayed.

The meal finished—and no soldier was denied seconds if he wanted them—the soldiers took their mess gear, with whatever they had not eaten, to the opposite end of the building where there were eight aisles beside each of which was a refuse can and a series of three connected tubs each filled with scalding hot water. By passing his mess gear from one tub to the other, one accomplished an effectual sterilization. Dieticians not acquainted with army methods probably would not believe that fifteen minutes was longer than was necessary for the enjoyment of a full meal in that dining room.

* Assigned to quarters in Section "G" Base Hospital No. 31 found itself near the border of the camp nearest the sea. From the end of the company street one could see the Atlantic and the tips of the masts in the harbor. What a sight it was, when, at the sound of a whistle, the men gathered on the tops of the wood piles to see some vessel moving about in the bay. At high tide, late in the afternoon, every afternoon large ships could be seen going in and out of the harbor. All hope of getting away within the first twenty-four hours was abandoned and each succeeding day brought new hopes that perhaps on the morrow the ship that was to carry the detachment would be slated to leave. Details were maintained at the headquarters

Official History, U. S. A. Base Hospital, Number Thirty-one

office to watch the bulletin boards, in order that there should be no delay in getting the news to the men as soon as the name appeared.

There was nothing else to do. There were no drills, and only the mess details every day. For most of the men the greatest task was to kill time. The various welfare huts were well patronized—particularly the Salvation Army, where at 4 o'clock every afternoon long lines of men, extending often as far as 100 yards from the doors of the huge hangar waited their turn at the counter where delicious doughnuts or luscious pie and good coffee or chocolate were served for a small sum. That was a daily event no one missed, and thoughts of it will linger long after many another detail has been forgotten.

There were plenty of discouragements during the long, tedious days of waiting. Line outfits of the 35th Division came and went—and the men understood the preference was brought about by pressure from the home states. Then the 28th Division started through the camp—and again the hospitals were “out of luck”. Then it was that stories began to fly thick and fast that the hospitals would have to wait until all the line units in the embarkation area had been moved. It was in the midst of this condition of despond, on the night of April 18, that word came from headquarters that U. S. S. Mercury was to carry Base Hospital No. 31, together with some other hospitals and various small line units.

The Mercury had been unheard of. The best rumor afloat had been the Finland, and it was said all hospitals were being held for that vessel. But the mere fact that no one knew about the Mercury meant nothing. It was an American vessel and was going to the United States, and was due to arrive there some time—so what did it matter?

At 11.30 o'clock on the morning of the 19th the unit fell in for the last roll call on the soil of France, and there was a marked snap to the response of every man. Shortly after noon there was the final formation on the parade ground, and the march to the docks was begun after instructions that there was to be no hilarity or undue enthusiasm displayed while on the march. It seemed that someone in command did not like to have the French know how happy the American soldiers were to leave. It was a spirit of quiet content that prevailed, when after a surprisingly short march the command arrived at the dock and looked up at the gigantic Mercury. It was good to look upon. It was small compared with the Leviathan, on which the original unit had come to France, or the Olympic which had carried Unit “G”. But it was much larger than had been expected.

Climbing the after gang plank the enlisted men were ushered to their bunks in Apartment “E-3”, about midships and just below the water line. The compartment was immaculately clean, and it was apparent that ventilation would be good. Spring bunks were arranged in tiers, four high, with just about enough room in between to allow the average person to turn

Official History, U. S. A. Base Hospital, Number Thirty-one

around—and little more. It was rumored that on the last trip there had been only three bunks to the section but as a "special courtesy" the fourth was placed to speed up the work of bringing the boys home—and none of the boys complained. Those officers who had remained until the end were quartered in comfortable staterooms on the upper decks. All the enlisted men were in "E-3", which housed men of Base Hospital No. 28, of Kansas City, and other casual units. The compartment was filled when, late in the afternoon, instructions on the proper method of arranging bunks, and the rules of conduct were explained by the ship's officers. The hour of sailing was fixed for 5 o'clock the morning of April 20.

The U. S. S. Mercury was one of the many German vessels interned in American harbors at the beginning of the war which were taken over by the United States Navy upon the entrance of America into the war. As the Kaiser Friedrich-Barbarossa, it had been in Trans-Atlantic service for more than twenty years. When interned its engines were badly mutilated and rendered useless for service. Immediately after the declaration of war, American naval engineers took over the vessel and began her repair, which required nearly six months. The maiden voyage under the American flag was made in November, 1917. With the exception of a few minor difficulties which necessitated short stays in dry-dock the Mercury had been in continuous service as a transport, carrying thousands of troops and tons of munitions and food across the sea during the periods of greatest submarine activity.

On the current voyage, U. S. S. Mercury carried 3,101 troops and 125 officers, the maximum carrying capacity being taxed. For the men of Base Hospital No. 31 the voyage promised greater comfort than had been enjoyed on the trip to France in the larger vessels. The Youngstown boys were happy they did not have to crawl down into "G" hold of the Leviathan and the Syracuse contingent preferred "E 3" to the quarters on "B" deck of the Olympic. In comparison, the Mercury was spotless. Its sanitation system was complete and the sleeping quarters were always as clean as could be expected. It was, perhaps, natural in a ten day voyage for which rations had been brought from the United States, that the food should not always be fresh. Some meals were above the average—and then again,—no one on board will forget the day a couple tons of roast pork were thrown overboard. There were two or three circumstances on board which were not the most pleasant. First: The canteen, operated by the Navy, charged American retail prices, which were much higher than the men had been accustomed to paying in the Army canteens in France. Second: The deck space allotted to the soldiers was totally inadequate, 3,000 troops being confined to the forecastle, well deck and after deck, and the first promenade deck while the larger, upper promenade deck and the boat deck were reserved for the use of the 125 officers.

Official History, U. S. A. Base Hospital, Number Thirty-one

But, there was little fault finding. The weather was beautifully calm most of the way, and entertainment on board was plentiful. The welfare workers were constantly active furnishing the men with smokes and candy and promoting boxing bouts and other athletic contests. There were movie shows on the decks for the enlisted men each evening, and for the officers there was a special program in the dining salon. The members of the Contrexeville jazz band, with a few other musicians entertained the officers during meal hours and a brass band was organized among the men of Base Hospital No. 31 and Base Hospital No. 28, naval instruments being borrowed for the purpose.

After having spent the first night at the docks, almost every person aboard was on deck at 5 o'clock the morning of the 20th to see the Mercury turn in the harbor and pass through the canal and out to sea. There was no parting send-off other than that given by the mere handful of French dock workers. With a French pilot aboard the Mercury glided easily through its channel for more than two hours, when a packet took off the pilot and the Mercury proceeded full steam ahead. All that day the boat travelled in full view of land. Late in the afternoon a slight change in the course drew away from the shoreline, leaving only a faintly outlined, dismal, gray shadow as a last glimpse of the France where that entire human cargo had spent many of the most valuable months of their lives.

On the third day out the splendid weather was broken by a bit of a storm, through which the Mercury battled without difficulty. On succeeding days there were little scares, but only once was the sea sufficiently rough to create a bothersome roll. The days were warm and the men enjoyed nothing more than to don the blue denim suits which had been issued the first day out, and to sit or lay around on the decks, fully exposed to the sun. The evenings were cool, but not too cold for the many who took their blankets up on deck and found little sheltered spots where they spent the night.

All sorts of vessels were passed, not a day going by without at least one ship coming into view. Some were passed at a distance of only a few hundred yards. One boat, passing in the night, and flying a French flag, inquired as to the destination of U. S. S. Mercury. At that time the port had not been determined, because like all American vessels, the Mercury left St. Nazaire expecting to pick up instructions two days away from the American coast. "Don't know"—was the response given the vessel, which was bound for an English port.

"Don't know?—You big dub!" was the reply, flashed with the heliograph.

And in truth—no one knew at what port the Mercury would dock. Its general orders specified Newport News, in the event that no contradictory orders were received. No one wanted to go to Newport News and silent prayers pleaded for a northern port. Because Maj. General Muir

Official History, U. S. A. Base Hospital, Number Thirty-one

and the headquarters staff of the Twenty-eighth division were on board Philadelphia was the favorite in the guessing. On the ninth day out, after radios intercepted had given orders to other transports nearby to go to New York, orders were received to proceed to Philadelphia. The course changed immediately, with the mouth of Delaware Bay as the objective. Land was sighted soon after day break on the morning of the eleventh day, April 30. The first light houses were a most welcome scene. Before breakfast the Mercury had entered Delaware Bay, and proceeded at decreased speed toward Philadelphia. Enthusiasm was boundless as the men on board realized that American land was on either side of them. It was the one day each and every soldier had yearned for during every day of every month of his service overseas.

It was just noon when the City of Chester was reached, and the shores of the river were lined with men from the factories and homes, who had come out to welcome the home-coming Twenty-eighth division, it having been spread broadcast throughout the State that the Headquarters of the Twenty-eighth Division was on board U. S. S. Mercury. Whistles started an endless din, every factory, locomotive and steam vessel in the vicinity opening wide the jet, making the welcome greeting voluminous. A short distance further up the bay the Mercury was met by a group of river craft loaded with friends and relatives of men and officers. The Governor Pennypacker brought an official delegation including the Governor of Pennsylvania, the Mayor of Philadelphia and other dignitaries, who came aboard the Mercury to extend a formal welcome to Major General Muir.

Of course, all of that was intended for the Twenty-eighth Division, but it was a welcome home to every man and officer of Base Hospital No. 31 as well. It was the greeting of the United States to whomsoever was on board that vessel and the men from Youngstown and Syracuse took unto themselves the full measure of enthusiasm and hearty good cheer displayed in that welcome demonstration. They were happy to be a party to such an occasion. The shoreline of South Philadelphia was a living mass as the Mercury passed through. The whistles heard at Chester were insignificant as compared with the tremendous din of the immense Philadelphia factory sirens and whistles. The Police boat brought the Police Band down the river to greet the troops, and at the municipal pier a Marine band played the "Star Spangled Banner" as the boat warped in. As the gang plank was lowered the decks were cleared, all troops going below to their respective compartments for the final adjustment of their packs.

It was late in the afternoon when Base Hospital No. 31 made its way down the plank and set foot on American soil. And what a peculiar feeling that was! True, the "soil" was the tar covered floor of the immense terminal—but it was America.

Red Cross canteen workers distributed cake and ice cream and the welfare organization women passed out telegram blanks for free messages

Official History, U. S. A. Base Hospital, Number Thirty-one

to the homes of the men, while the troops awaited orders to entrain for Camp Dix. Throughout that journey, made in day coaches that surpassed in comfort, the men thought, even the very finest French carriages, the soldiers beheld scenes of welcome. Passing out of Philadelphia, every house displayed its American flag and every window along the route showed somebody's mother, or sister, or wife, waving a handkerchief or flag to the homecomers. It was after 9 o'clock when the train arrived at Camp Dix station, and the men swung out across that immense camp. There was a strange something about the night air that filled every chest. It was not the same air breathed in France. It was America and Home. That night was spent in barracks—two story barracks, such as France never had seen. Supper was served in a neighboring building and the men prepared for the night, some of them sleeping on "double-deckers" and the more fortunate getting spring cots. Even the ground would have been a welcome couch that night.

The telephones were busy the next morning—in fact, all that day, as the boys sought to get into direct communication with their families in all parts of the country. There had been reports circulated that discharges were possible within 48 hours, but throughout the first day little was accomplished toward that end. On the morning of the second day the delegation from Mahoning Chapter of the Red Cross, headed by Mrs. F. M. Orr and including Mrs. C. J. Ott, Miss Olive Deibel, Miss Lola Gibson and Miss Caroline Packard, greeted the men, bringing with them just the sort of thing that best suited—something that tasted like home. And Burt's candy filled the bill.

Immediately after noon the barracks were cleared, surplus baggage was sent home, and the remainder was carted off to the "delouser" for a repetition of the process undergone at St. Nazaire. But it was not the same process. A lecture on the proceedings detailed just how every part of sterilizing was accomplished. Particular stress was placed upon the fact that all articles of clothing were to be hung on a hanger in just such a manner, to avoid wrinkling. Shoes were to be left at a certain place, tied together. New underwear and hosiery would be issued. All other articles, such as might be in barracks bags were sterilized separately.

The shower room was much unlike that at St. Nazaire, but any sort of bath would have sufficed. The greatest shock of their army careers came to the men when they emerged, their hides dripping. One towel, about half the size desirable for a single bather, was passed out with the remark: "One towel for two men." And there was no alternative. Underwear of a sort, and socks were issued and then began a wild scramble for shoes, which were being distributed from a single pile. Each soldier had placed a serial pin on his clothes and on his shoes, the third pin in the series being on a string around his neck. But for the fact that there was considerable duplication of numbers this system might have worked out. Shoes finally

Official History, U. S. A. Base Hospital, Number Thirty-one

passed out so that every man had something to walk in, the next stop was the clothes room. The large truck in which the clothing had been placed emerged from the sterilizing drum, a mass of steam. Clothing had been hung on the racks to the fullest capacity, then outfits were placed down the sides and along the top, and then, it seemed, attendants had stamped over all to make a little more room.

What a waste of time and energy for the Major who had made the speech about wrinkling clothes!

Every piece had to be pressed on the steam pressing machines for which there were no operators, and no soldier could leave the building until he had passed inspection. The wise ones found excuse to cast aside the uniform they had carried throughout their service, in exchange for new equipment. Many wanted to wear home the uniform in which they had worked but they were ashamed to face their families in the wrinkles they got in the sterilizer.

The next stop was at a salvage warehouse where all articles of clothing not to be retained by the soldier were discarded in a set manner. The heavy blankets which had been such a burden and such a comfort, were cast aside, as were the medical belts and ration bags, axes, and all other medical supply or ordnance property. There were many who sought to keep, as a souvenir, their mess gear, but that, too, was taken and the men emerged from that building high of heart and light of load. The day had come when they no longer would have to carry a pack or make a roll. Verily, there were evidences that their army careers were soon to end. And there was no unhappiness.

There was a little heartache, however, when, a few hours later, the men were lined up before the headquarters of the provisional company. The command was given for all men whose names began with from "A" to "F", and so on, to fall out in separate groups, which were assigned to different barracks. The final disintegration of the unit had begun, but few realized it. The men of Base Hospital No. 31 were never together again after that. They mingled more or less that night, and the next morning some were together for breakfast, but the last formation and roll call of Base Hospital No. 31 had been held, and that organization existed only in name. The men were casuals and the officers who had been responsible for them throughout their career up to that time were casuals, too. After breakfast the several companies held their usual formation, and the last step in the splitting up process started. The men who were to be discharged at Camp Dix were concentrated, and those who were to go to Camp Sherman and elsewhere were sent to various sections of the camp.

There was much sadness when it was realized that the time had come for the separation of the men of Hospital Unit "G" and the Youngstown boys with whom they had spent a harmonious year in the fulfillment of a duty, not always pleasant, but always sacred.

Part Two

A series of papers, written by department heads, the editor and other contributors depicting the various phases of the activities of U. S. A. Base Hospital No. 31.

CONTREXEVILLE

Rattling, coasting, jerking a bit forward and four or five bits backward the long ramshackle collection of rolling stock known as a "train militaire" finally climbed the grade through the long woods of ancient oak leading from Martigny-les-Bains out into a stretch of open country bound by wind-swept and partly wooded hills. From the boys who had ridden half way across France on the tops of the cars, and who were still on top, we heard a great cry. It was such a sound as might have thrilled the soul of Columbus when the first of his polyglot crew cried "Land ahoy" in whatever language it was they used.

It was the Hotel Cosmopolitain that occasioned the outburst. Save for it we would not have known for another fifteen minutes that we had finally arrived in Contrexeville. But this great structure of stucco and brick was erected on the summit of one of the hills that enring Contrexeville. No matter from what direction the traveller approaches the village of our labors the first and only building he sees is the "Cosmo". All the rest of the village, with its dozens of hotels and hundreds of houses, is stowed away neatly into a pocket of the Vosges foothills. There was not a day until the armistice was signed that we did not look up at the giant "Cosmo" and say: "What a mark for a Boche bomb."

From the appearance of the railroad station Contrexeville was only a little better than the scores of villages through which the train had passed. The same covered waiting stalls on both sides of the track, the same automatic gong with its harassing clang and the same passenger station with its red wooden picket fence, its two water towers and the inevitable outhouses well screened by clipped hedges. Leading into the village proper from the station was a well kept road lined with pollard willows, on one side of the street small gardens, broken only by the ever present cafes, on the other side some really handsome villas—the first evidence that this was not, in truth, like all other villages in France.

At the first intersection one finds the first of the hotels, three large structures whose outward appearance of solidity and dimension belied the inconsistencies of design and antiquities of construction with which their interiors abounded. The Royal, the newest of the hotels, looked as though it might have been designed by an architect in Pasadena, or Los Angeles, or perhaps San Antonio. It was more Spanish than French. But the Paris and the Providence were all French, from the stone stairs to the mansard

Official History, U. S. A. Base Hospital, Number Thirty-one

roofs. Turning into the first street to the right, one passes the first typically French street of the town, narrow and steep and lined with buildings that would fit in any village in France. A few steps further down and the main thoroughfare of the village is in view, but before it is reached you see the high grilled iron fence, the symmetrical garden plots and the long Graeco-Byzantine colonnade of the "Etablissement des Eaux".

But the main thoroughfare first. Once upon a time the River Vair (in France it is a river—in America it would be a brook) traversed the main street of the village, and it was also the principal artery in the village sewer system. Thousands of visitors who came from all parts of France to benefit by the waters were offended by the sight and smell of the stream. In response to their protests the stream was covered with a structure of reinforced concrete approximately level with the roadway which ran on either side of the stream. The first fifty yards of it were planted with buckeye trees, and the net result was called the esplanade.

Most important among the structures in the village is the bath-house. The colonnade defines one side of it. For beauty of design, thoroughness of equipment and facility of operation it probably is without a peer in France—or America either. Here in the days before the war came nobles and commoners—prosperous commoners to be sure. A Russian Grand Duchess had a bath all her own and the Shah of Persia had for his own use a room with luxuries as the Orient never knew—a rectangular bath tub of tile and marble sunk into the floor of the same material, a shower bath of complex design and facilities for about every other kind of bath known. The bath-house itself is a circular building, with circular corridors into which the bathrooms opened. In the center were the massage, X-Ray and other special bath rooms. Through the initiative and generosity of the American Red Cross this entire establishment with all its facilities were placed at the disposal of the American Expeditionary Forces, under the joint direction of Base Hospitals 31 and 32. More than 50,000 baths were given to personnel and patients.

The colonnade itself, a gem of architectural design, was built as a tangent to the circular bathhouse. Opening into the colonnade was another circular structure, a huge dome affair which housed only the principal of the Contrexeville springs, the Source du Pavillon. During the summer months large rattan chairs were arranged around the circular walls and in the early morning hours the "buveurs" would sit and talk of this and that, and at regular intervals would go to the spring and drink a very exact amount of water from a graduate glass.

A covered passageway led to the Hotel de l'Etablissement, a huge structure built at intervals covering more than half a century. The villagers used to say that one kick from a good horse would send the entire structure

Official History, U. S. A. Base Hospital, Number Thirty-one

tumbling into a heap. Because of the many additions and alterations which had been made one required the services of a guide in exploring the building. But in time of emergency, when almost every day saw a new trainload of wounded, when every available bed was needed, the old "Establishment", as we called it, served a mighty useful purpose. At the close of our stay in France it served as a barracks for all the enlisted men—probably the most luxurious barracks in France.

Continuing along the covered passageway one came to the Casino, a handsome building of white stone and glass, with a vast glass-enclosed veranda. Within the Casino were a theater, highly decorated game rooms and a foyer of marble and mirror, leading to the theater. The veranda, with a glossy floor of marble tile was used for a few dances in the early summer months, but when the patients began to roll in by the hundreds, more than two hundred beds were set up and maintained there. Hundreds of men with lesser wounds spent their entire period in the base hospital out on the Casino porch—probably the largest single ward in the A. E. F. The gaming rooms were wards, too. What had been the baccara room, where in other times, men and women lost and gained fortunes, was converted into the "shock ward" where the most serious cases were taken after operation. The operating room itself was in the old foyer of the theater—a highly practicable place, with an abundance of light.

The Casino, the Hotel de l'Etablissement and the colonnade, together with the Hotel de la Souveraine, the smallest but most luxurious of the Contrexeville hotels, opened into the park—a small paradise, with reaches of gently sloping lawn, curving driveways, well grouped trees and carefully groomed hedges. One can only imagine what a great source of rest and comfort this park was to be to thousands of convalescent sick and wounded. The Continental and Harmand hotels, occupied by Base 31, the Hotel of the Twelve Apostles, used as the nurses' home, and the Hotel DuParc, which housed most of the officers, faced onto the street which bordered one side of the park. Except for a few clustered buildings this street looked much like an American street. But leading from it up a steep grade, guarded by an iron railing was another street, vivid in contrast. It had the tiny white houses with red tile roofs, the arched barn doorways, the small iron balconies of high design and low utility, an enigmatic structure with a collection of bells on the roof—and in front of each house a little bench on which no one ever seemed to sit. Facing the esplanade were the hotels Martin Aine, Martin Felix and Thiery, all of which were used by Base 31, the last named, as a hospital for officers only.

Little Contrexeville nestling in the hills, with only its garish "Cosmo" and the power-house smoke stack extending above the traveler's line of vision, with its strange collection of natives, representing all extremes from the most carefully cultured and tutored to the most lowly and boorish

Official History, U. S. A. Base Hospital, Number Thirty-one

peasants, and with its cluster of ancient hotels, is a landmark, a shrine of remembrance, not only for the thousands of patients who came there and were sent on their way to duty or to a long convalescence at home, but as well to those who were the spirit and moving force of the hospital.

Forever it must remain as a sacred spot to the relatives of those who passed the Great Divide while at Contrexeville. High on the hill back of the ancient Catholic church, back of the native cemetery with its too highly ornate memorials, is the little plot of ground where there are wooden crosses, row on row—and floating over all the Stars and Stripes in whose name they fought and died.

M. E. Kaletzki.

ADMINISTRATION

Despite frequent changes in commanding officers the administration policy of Base Hospital No. 31 was almost unchanged, except for progressive evolution of plans, during its entire history.

Brought to France under the command of Lt. Col. Adam E. Schlanser, then a major, the base hospital did its work under five other commanding officers, one of whom was a captain. It was during the regime of Lt. Col. Schlanser that the fundamental basis for the working of the institution was laid, during the first six months in France. He was relieved in June, when, immediately following his promotion to Lieutenant Colonel, he was transferred to the hospital center at Mars-sur-Allier, then in construction, as commanding officer.

Major Colin R. Clark, previously director, became commanding officer upon the departure of Lt. Col. Schlanser and was in turn advanced in grade. The principles of administration conceived with the inception of the institution in Youngstown were merged with the regular army methods of Lt. Col. Clark's predecessor, making for a thoroughly intelligent combination of military requirements and professional necessity. It was not long, however, before the services of Lt. Col. Clark were called for by the department of professional service, when he became chief medical consultant of Base Section No. 1, and Capt. A. Earl Brant, who had been chief of the surgical service, assumed command. One of the youngest officers in such a position in the American E. F., Capt. Brant proved one of the most efficient in that he carried the responsibilities of his position through one of the most trying periods of the hospital's activities.

When Major John L. Washburn was advanced from the rank of captain he became ranking officer of the unit and, so, commanding officer and remained as such during the Argonne offensive, when the hospital was at its heaviest working point. During his regime expansion was effected to meet emergency requirements. The first promotions of enlisted men since March were approved during his tenure, which ended when Lt. Col. James A. Sherbondy returned from detached service with his surgical team in front areas.

Lt. Col. Sherbondy was in command during the period of last evacuation and the reduction of the hospital from its highest working point to the normal basis as existent prior to the Chateau-Thierry rush. He was relieved when orders were received for his return to the United States early in Jan-

Official History, U. S. A. Base Hospital, Number Thirty-one

uary, 1919. Lt. Col. Edward S. Van Duyn, who came to Base Hospital No. 31 as commanding officer of Hospital Unit "G" when that body was attached for duty, was the next chief. During the brief period preceding his elevation to the position of commanding officer of the hospital center Lt. Col. Van Duyn had to do with the clearing of buildings, preparatory to their being returned to the French authorities. When, on February 2, the hospital was officially closed as such, Major Washburn was again in command.

Always in close association with the office of the Commanding Officer was the adjutant and his staff. Capt. Sidney M. McCurdy, M. C., was relieved from duty as adjutant in April, 1918, after having served in that capacity for several months. He was succeeded by 1st Lt. William H. Williamson, recently commissioned in the Sanitary Corps, and a regular army medical department man. With the elevation of Lt. Williamson from the rank of master hospital sergeant, Sgt. 1c Robert E. Jones assumed the duties of sergeant major. Later he was stepped up to hospital sergeant and finally to master hospital sergeant. All official correspondence was cleared through this office. The co-ordination of statistical information from all other departments was a large factor in its activity. Sergeants Harrison T. Sexton and Clarence W. Carlson, with Miss Frances Boyd, civilian employe, as interpreter, constituted the staff.

Directly responsible to the commanding officer were the heads of the various departments: surgical service, medical service, specialty services, chief nurse, detachment commander, laboratories, mess officer, supply officer, registrar, and quartermaster. The last mentioned was a member of the Quartermaster Corps. Each department developed its own organization according to the policies of the chief and are discussed elsewhere. Their reports, made regularly, included considerable information not required by army regulations but desired by the office of the Commanding Officer.

In its relation with the remainder of the American Expeditionary Forces Base Hospital No. 31 functioned through the headquarters of the hospital center of which it was a part. This was true more particularly in matters of general policy concerning the general work of the four hospitals embraced. Although responsible to the commanding officer of the center the hospital was likewise under the supervision of the chief surgeon's office, orders coming direct from that office.

THE MEDICAL SERVICE

Major Charles C. Wolferth, M. C., U. S. A.

Personnel

When Base Hospital No. 31 was called into active service on September 6, 1917, the Medical Service was tentatively organized under the charge of Major Burt Wilson. While the unit was in training at Allentown, Pa., Major Wilson, on account of illness, was forced to give up his duties and withdrew from the army. At this time Major C. R. Clark undertook the charge of the Medical Service in addition to his duties as director of the unit.

On the arrival of the hospital in Contrexeville, January 1, 1918, two hotels, the Continental and the Martin Aine, with the capacity of 500 beds, were assigned for the care of medical cases, exclusive of officers, who were to be cared for at the Hotel Thiery. At this time the personnel of the department was organized by Major Clark as follows:

Major C. R. Clark, Chief of Service.

Hotel Continental: Capt. C. C. Wolferth in charge; Lt. D. B. Phillips and Lt. W. H. Bunn.

Hotel Martin Aine: Lt. C. D. Barrett in charge; Lt. C. M. Reed.

Hotel Thiery: Lt. W. K. Allsop in charge.

When Unit "G" arrived March 13th the service was reorganized as follows:

Chief of Service: Major C. R. Clark:

Assistant Chief of Service: Capt. C. C. Wolferth.

Hotel Continental: Capt. W. D. Alsever in charge; Lt. W. H. Bunn and Lt. R. W. Fenton.

Hotel Martin Aine: Capt. H. B. Doust in charge; Lt. C. D. Barrett and Lt. C. M. Reed.

Hotel Thiery: Lt. E. V. Sweet in charge of medical patients.

There were no further reorganizations, changes being made only as occasions arose. On June 13th, Major Clark became commanding officer of the unit and Capt. Wolferth chief of medical service. About a month later Major Clark, recently promoted to lieutenant colonel, was sent to Base Section No. 1, as Consultant in Internal Medicine. On July 25th, Capt. Doust was ordered to Evacuation Hospital No. 7. Later he was promoted to the rank of major and sent to Base Hospital No. 115 at Vichy as Chief of Medical Service. Lt. Barrett succeeded Capt. Doust in charge of the Martin Aine.

Official History, U. S. A. Base Hospital, Number Thirty-one

On October 17th, Major Alsever was sent to Base Hospital No. 63 as Chief of Medical Service, Capt. Sweet at this time taking charge of the Continental. Capt. M. A. Cain of the Surgical Service, who followed Capt. Sweet as officer in charge of the Hotel Thiery, in addition to his other duties, looked after the officer medical patients. Lt. Reed was away with an operating team, except for brief periods, from the latter part of March until after the armistice. On November 26th, Lt. E. R. Thomas was transferred from the Surgical Service. During times of rush various casual officers assigned to the organization were available for duty.

At the time the Medical Service disposed of its last patients on January 30th, 1919, the personnel of the department was as follows:

Chief of Service: Capt. C. C. Wolferth.

Hotel Continental: Capt. E. V. Sweet in charge; Lt. C. D. Barrett, Lt. R. W. Fenton and Lt. C. M. Reed.

Hotel Martin Aine: Lt. W. H. Bunn in charge; Lt. E. R. Thomas.

Hotel Thiery: Capt. M. A. Cain in charge.

From August until the hospital was closed the services of a consultant became available, Lt. Col. John B. Elliot being assigned to the district.

Three officers, Major Doust and Captains Wolferth and Sweet, were sent to the Central Medical Laboratory at Dijon for the course in resuscitation under Major Cannon. For a time Major Doust was in charge of resuscitation work at Evacuation Hospital No. 7. Capt. Sweet was in charge of resuscitation work in Base Hospital No. 31.

The temporary assignments of officers for duty away from the organization were too numerous to be detailed. Three officers were permanently detached: Lt. Col. Clark, as consultant for Base Section No. 1; Major Alsever, as Chief of Medical Service for Base Hospital No. 63, and Major Doust, as Chief of Medical Service for Base Hospital No. 115.

Administration

It is obvious that the problems of administration of medical services in base hospitals must vary somewhat with each hospital, according to personnel, types of cases received, housing facilities, transportation, distance from the front, rapidity of evacuation, etc. Consequently all these factors had to be taken into consideration and met as they arose. Conditions tended to vary rapidly. Officers were frequently ordered away and not replaced. The unit was forced sometimes to function as an evacuation hospital. The number of patients changed within wide limits rapidly from time to time and might be preponderately medical or surgical.

Until the last month of the war it was seldom known until a train arrived what type of patients were to be expected. During the Chateau-

Official History, U. S. A. Base Hospital, Number Thirty-one

Thierry drive one train, supposed to be carrying wounded, brought 500 gas cases. The Chief of Medical Service might perfect a theoretically perfect organization one day and the next find himself giving anesthetics. Consequently it was necessary to keep the organization from becoming too fixed so that changed conditions could be rapidly met.

When the unit reached Contrexeville two buildings, the Hotels Continental and Martin Aine, were tentatively assigned to the Medical Service. The capacity of these buildings, calculated according to the American army standards, was 500 beds. Later, owing to necessity for increased hospital facilities, 200 extra beds and cots were added, filling all available corridors and closets. All officer patients, whether medical or surgical, were sent to the Hotel Thierry. Usually this gave sufficient beds for medical requirements but occasionally it became necessary to encroach on the surgical side and vice versa.

The Chief of Service was given a free hand in the administration of the department. He was responsible to the Commanding Officer for the medical care and disposition of each case in the service. It was therefore his duty to see that all possible efforts be made in the diagnosis and treatment of cases; that all cases ready for duty be returned as rapidly as possible; prevent return to duty of those men not yet ready; to prevent spread of contagious diseases; battle with the vermin and skin diseases; see that cases were properly classified for evacuation; that all consultations, treatment and transfer from other departments be promptly attended to; that all orders in so far as they applied to the Medical Service be faithfully obeyed; that records be properly kept, and, on the other hand, to handle the interesting clinical material in such a way that as much as possible be available to each officer of the service. Hence it seemed best that the Chief of Service should not have charge of any building or direct charge of patients, but should utilize any spare time he might have in helping where he could be of most assistance.

The administration of each building was entirely in charge of the officer to whom that building had been assigned. He was responsible for the property, policing and discipline, in addition to his responsibility for the medical care of patients. Each ward officer in turn was responsible to the officer in charge of the building.

Perhaps the administration, in so far as it touched the patient, could be best shown by tracing the course through the hospital. The soldier, whether American or belonging to the Allied forces, came either by train or ambulance. If by train he came either from evacuation or field hospitals anywhere along the French or American front; if by ambulance the distance travelled was usually between fifty and eighty kilometers, from that portion of the line more or less directly in front. Consequently, he might be an acutely gassed case with one or possibly no alkaline bath treatments, or any other condition coming within the category of medicine.

Official History, U. S. A. Base Hospital, Number Thirty-one

All lying cases were taken directly to the hospital buildings. Sitting cases were sorted as to desirability of bathing before sending them to the buildings. It was found best not to bathe immediately any case suffering from respiratory diseases, gas (except old or obviously mild cases) or any patient who was weak or had rapid pulse. All those taking the bath were at this time inspected for skin diseases and vermin. As soon as the patients reached the building they were seen by one of the medical staff of that building, temperature, pulse and respiration taken, a superficial examination made, diet ordered, also any medication or laboratory examination that obviously suggested itself. Those cases requiring immediate attention were taken care of at this time. After being seen by a medical officer the cases were assigned by the ward master to the proper ward and bed. The patient might go to the detention room for observation for contagious disease, the respiratory ward for gassed cases, etc.

No very elaborate divisions seemed necessary or even desirable. It seemed important to separate contagious disease suspects and contacts—pneumonia, influenza, typhoid fever—keep gassed cases as far as possible from respiratory infections, and to separate the war neuroses from medical cases in general. At the earliest opportunity, which might be the next day, the case was gone over thoroughly, history recorded, treatment detailed as far as possible and requests for appropriate clinical laboratory and X-ray examinations or consultations made.

The very excellent laboratory and X-ray facilities, the ease of procuring examinations along any special lines desired, together with frequent examinations and discussions among the members of the medical staff of those cases which afforded diagnostic or therapeutic problems made it possible to give the soldier satisfactory medical attention. The facilities were in some respects better than those obtainable in any but the best civilian hospitals. While the number of nurses was far below the standard of peace time civilian hospitals, this was in part compensated for by the fact that the nurses were all graduated, that they worked with a devotion that is beyond all praise, and that the corps men detailed as orderlies quickly learned their duties and were able in part to substitute satisfactorily as nurses.

As far as possible each case was seen every day by the ward officer and by the building officer as often as he deemed necessary. The Chief of Service attempted at first to make complete rounds and see every case once a week. This was often impossible of accomplishment, besides being, in this institution, unnecessary.

It was found that occasional complete rounds, together with daily visits to each building to see those cases which the building officer wished to have seen, consumed far less precious time for all concerned, besides accomplishing just as much for the patients. Approximately once a week, visits were made by Lt. Col. Elliot, consultant for the district, to whom were brought all the unsolved problems. The entire medical staff, individually and collec-

Official History, U. S. A. Base Hospital, Number Thirty-one

tively, owes to Lt. Col. Elliot its gratitude for his delightful and profitable clinics.

Usually as soon as a patient's examination was complete he was grouped according to the condition found, either as non-transportable, for evacuation to the United States, for reclassification by the Disability Board, for transfer to some special hospital, or to the rear by hospital train, or, in the duty class, to be sent as rapidly as possible to the convalescent ward. Contagious disease cases were immediately sent to the hospital for contagious diseases at Vittel.

It was attempted throughout the war to keep as many empty beds as possible in the hospitals in this area. Consequently special efforts were made to dispose of cases rapidly. Evacuation was practically always by hospital train, excepting those cases going direct to special hospitals or returning to duty. The criterion for evacuation to the rear varied, depending upon transportation facilities, hospital space in the rear and expected demand for beds in this particular area. Usually those cases whose convalescence would require more than two weeks were evacuated whenever trains were available. Occasionally all were evacuated who were not expected to return to duty in four days. This would naturally empty the hospital quickly and prepare us for heavy admissions of battle casualties, which so far as the medical service was concerned consisted principally of gassed cases.

As soon as the patient had progressed to the point that he no longer required medication nor close observation and would be benefited by some exercise he was sent to the convalescent ward which was under the charge of Capt. Davis Spangler. Capt. Spangler has described in another place the methods employed in that department. The convalescent ward was organized for the purpose of building up, as rapidly as possible, the strength of the soldier weakened by disease or wounds and combating the tendency toward "mauvais esprit" engendered by more or less prolonged hospitalization. The result was a success beyond our expectations. Later when the convalescent camps were organized in certain areas for care of cases of this type, none was available to us. Nevertheless our own convalescent ward met our needs so well that we were never inconvenienced by the lack of a convalescent camp.

The question as to when a soldier was ready to be returned to duty was sometimes a very nice one to decide. Justice to the soldier demanded that he be well hardened before going out to endure the hardships and exertion incident to his work in the line.

On the other hand the need for soldiers was so imperative that not a day was to be wasted in holding back men fit for duty. The observations made at the convalescent ward afforded a good idea as to a man's general condition. In addition each man was sent out on a prescribed hike of seven to ten kilometers, ending with a thirty minute march at 120.

Official History, U. S. A. Base Hospital, Number Thirty-one

At the end of this hike the medical convalescents were seen by the Chief of the Medical Service, or, sometimes, by some other member of the staff and rapidly examined for evidence of undue fatigue, dyspnoea or tachycardia.

Later each man was stripped and inspected for skin disease and given careful examination of the heart and lungs. All were invited at this time to state their physical complaints, if they had any. These complaints unless obvious fabrications to avoid return to duty, were carefully investigated. All who passed the various tests and examinations successfully were then recommended to the Disability Board for discharge to duty.

Throughout nine months during which the hospital functioned, 3,413 patients were handled by the medical service. The average stay, including time in convalescent ward, was 24.72 days. This gives a total of 84,369 hospital days. The ease with which this large service was handled was due principally to the untiringly conscientious, skillful work and hearty co-operation of the building and ward officers. Much credit is also due the nurses and enlisted men. Deserving of special mention for exceptionally high grade work are: building charge nurses, Miss Edna M. Bousfield, Miss Winifred Bullock, Miss Anna Jones and Miss Pearl Worley; ward masters, Sgts. 1st cl. Cyril P. Deibel and Harry R. McPhee and Corp. Charles H. Kaletzki, who acted as secretary in the office of the Chief of Service. All helped in generous measure to lighten the burdens of the Chief of Service.

Medical Observations and Statistics

The medical statistics of Base Hospital No. 31 show that with the exception of poison gas and the neuroses incident to war the same types of disease are found as in civilian hospitals. Yet there are several rather surprising variations from the percentages usually found. Thus out of 3,413 cases admitted to the medical service, 1,125 were suffering from the effects of poison gas; 1,149 from acute lower respiratory tract infection (including influenzal); 398 from gastro-intestinal disorders and 147 from the war neuroses. If thirty mental and sixty-three dermatological cases be excluded, there remain only 501 cases scattered among other conditions admitted to a medical service.

Gas Intoxication

Perhaps the most interesting group of cases, on account of the novelty of the condition, was comprised of those suffering from the effects of poison gas. Although absolutely accurate statistics as to type of gas encountered in each individual case were not possible, the records show 551 cases of mustard gas intoxication in which the chief symptoms were due to inhalation and 198 due to body surface contact. Most of the cases showed some effects

Official History, U. S. A. Base Hospital, Number Thirty-one

both from inhalation and contact. Of the 376 cases due presumably to the other types of gas the vast majority were caused by chlorine and phosgene. A few cases due to the effects of lachrymatory, arsenical and certain rare gases were seen.

It would not be worth while to discuss in this place the full symptomatology and treatment of gas intoxication but merely to call attention to a few points regarding treatment. The cases coming to this hospital very quickly demonstrated the value of the alkaline bath treatments. Those thoroughly treated showed remarkably few skin burns while those untreated often showed extensive burns, some of which required prolonged stay in hospital. It was also quickly noted that when acute lower respiratory tract infection occurred in gas inhalation cases, the condition was liable to be severe and prolonged. It was therefore considered wise to keep gassed cases as far away as possible from all types of respiratory disease.

The troublesome cough was benefited occasionally by inhalation but most by sedative mixtures containing opium derivatives. It was necessary in many cases to push the sedative treatment in order to prevent the development of bronchiectasis of the small tubes because of the extreme violent racking cough. This condition, described as fairly frequent in certain units, was extremely rare among our cases, possibly on account of the free use of sedative. Perhaps the most troublesome condition found during convalescence was the onset of effort syndrome which so frequently developed as the patient began physical activity. While there can be no doubt as to the genuineness of the curious pains usually referred to the region of the precordium, the psychic element played a large part, sometimes the most important part, in the clinical picture presented.

The soldiers were apprehensive as to the effects of gas in striking contrast to their nonchalance toward wounds. All of them had heard stories as to how men inhaling gas sometimes suddenly dropped dead without warning. Consequently the onset of any unusual pain, particularly if it happened to be in the region of the heart, frightened them. It was therefore necessary, in the treatment, to recognize this psychic factor. They were assured and reassured that the pain, shortness of breath, et cetera, were conditions to be expected during convalescence from gassing; that they were temporary and of no particular importance. As soon as a man was able to run up two flights of stairs without unduly persistent tachycardia or breathlessness he was removed from the hospital and sent to the convalescent ward, provided, of course, that careful physical examination was negative.

In the convalescent ward he was no longer treated as a sick man but as merely undergoing process of hardening. He was put through a regime of gradually increasing exercise and work. If the improvement was not as rapid as looked for the activity was cut down again and very carefully increased. During this stage the precordial pain and pains in various parts of

the trunk were frequently markedly relieved by the application of iodine over large areas.

Impressive visual effects were sought in the application of this iodine and possibly were responsible for the benefits. Under this regime the percentage of cases of effort syndrome that did not yield to treatment was small. If we exclude those cases with previous history of this condition the number of cases requiring reclassification for effort syndrome or disordered action of the heart following gas intoxication was almost negligible.

Diseases of the Respiratory System

As was to be expected the transportation of large numbers of troops, from the comparatively dry climate of the United States to the wet, raw conditions of France, resulted in numerous respiratory infections. This was quite in evidence even before the pandemic of influenza and broncho-pneumonia swept over the world, which, curiously enough, was less severe among the soldiers in many sections of France than at the cantonments in the United States.

Broncho-Pneumonia: The broncho-pneumonia seen at this hospital belonged, of course, to the type seen everywhere. But, since the descriptions of the disease as seen in various quarters show certain differences, perhaps it would not be out of place to describe the type seen here. The etiology was somewhat uncertain. There could be no doubt that the condition was in some way connected with influenza. The disease was entirely coincident with influenza.

During the mild epidemic of influenza in May, 1918, one typical case of broncho-pneumonia was seen. There were no further cases until the second outbreak of influenza beginning in the latter part of August. In quite a number of cases the broncho-pneumonia developed during what appeared to be an attack of influenza and sometimes occurred during the convalescence from that disease. But very frequently the disease seemed to be a definite broncho-pneumonia from the start, showing no apparent clinical or bacteriological relation with influenza except for its occurrence during an influenzal epidemic.

The predisposing causes seemed to be principally those conditions which tended to lower vitality, such as unusual exposure and exhaustion, lack of sleep, bad hygienic conditions, especially over-crowding, poor food or lack of it. Influenza, particularly cases badly cared for or allowed out of bed too soon, was an extremely important predisposing cause.

The exciting cause was some micro-organism or group, whose exact identity is not yet agreed on. From the very large amount of bacteriological work done in this hospital by Capt. David Farley and Capt. W. E. Muns on sputum, blood cultures, lung punctures, pleural fluids, culture of heart's blood and lungs at autopsy, the organism found most frequently

Official History, U. S. A. Base Hospital, Number Thirty-one

seemed to be a non-hemolytic streptococcus with constant cultural characteristics. Many other organisms were also found, sometimes in pure culture, sometimes mixed. The influenza bacillus was found not infrequently but usually in association with pneumococcus or streptococcus. In one case influenza bacillus was found in pure culture in pleural effusion. It was not found in any other specimen of pleural fluid. Pneumococcus was frequently found in sputum and occasionally in blood cultures and pleural fluid. Hemolytic streptococcus, staphylococci and other organisms were sometimes reported. In one case lung puncture yielded a pure culture of micrococcus catarrhalis. The meningococcus was not reported here.

Thus the bacteriological evidence was rather inconclusive. It could perhaps be harmonized with the more or less generally accepted theory that influenza prepares the lungs for secondary infection by various organisms more capable than the influenza bacillus of producing pneumonia. Autopsies usually revealed an extensive broncho-pneumonia frequently involving all the lobes. Small areas of necrosis and abscess formations were not uncommon. Almost every one showed more or less extensive pleurisy with varying amounts of exudate. The spleen was frequently somewhat enlarged, weighing from 250 to 400 gms. In these cases it was softer than normal and greyish in color. The kidneys and liver rarely showed evidence of degenerative changes.

Occasionally the right side of the heart was found dilated, but the left rarely. The muscle seemed to be in as good condition as could be expected following an acute severe febrile illness. The cause of death did not seem to be failure of the heart, but probably the action of a toxin interfering with some other part of the circulatory mechanism, possibly the vagus nerve. The bradycardia, followed by subsequent collapse, might indicate vagal stimulation followed by exhaustion.

There was a marked uniformity in the clinical manifestations as definite as that of typhoid fever, which, in the early stages, it greatly resembled. The onset was gradual, sometimes preceded by what appeared to be an attack of influenza. The most common early symptoms were headache, aching in limbs, coughing, dryness of mouth, coated tongue, loss of appetite, occasionally nausea and vomiting and nearly always listlessness. Occasionally there was meningism. The temperature rose gradually, and the pulse rate was practically always disproportionately low. The respirations were rarely increased. Physical examinations at this stage might show slight cyanosis, a few scattered fine moist rales or localized showers of crepitant rales over the bases of the lungs posteriorly or in the axilla. Frequently, no pulmonary signs could be elicited for several days.

In a number of cases the tip of the spleen was palpable. The leucocyte count usually revealed a leukapenia, although this was by no means constant. It was, however, rare to find a leucocyte count exceeding 12,000 in the absence of pleural exudate. The differential count was not characteris-

Official History, U. S. A. Base Hospital, Number Thirty-one

tic but frequently the leukapenia was of polymorphonuclear type. As the disease developed the cyanosis and a gradually increasing dyspnoea became prominent features. The more severe cases tended to have gastro-intestinal disturbances probably due to toxic paresis of the intestinal muscle. Tympanites was not uncommon. The temperature was irregular, showing wide variations and pseudo-crises. The pulse rate tended to stay down and was usually of good volume, even in the fatal cases, until nearly the end. The blood pressure was frequently lowered. As a rule no dilatation of the heart could be determined. The pulmonary signs tended to increase gradually. The first sign of importance was the localized showers of high pitched sub-crepitant rales already mentioned. Then developed, gradually, the signs of incomplete consolidation.

Only occasional areas showed the clear cut signs of a lobar pneumonia. The process almost always involved both lungs and, in the fatal cases, usually spread to all the lobes. In nearly all cases a pleural friction could be found by careful auscultation. Frequently a small amount of turbid yellowish sero-fibrinous pleural exudate was found. Occasionally the exudate was large in amount but rarely went on to pus formation. Out of a series of 155 cases of this type of broncho-pneumonia, but five required rib resection for empyema. No pulmonary abscesses were recognized clinically in our cases nor were any except very small ones found post mortem.

In those cases which recovered, the temperature subsided by lysis; not infrequently there were little flareups. One case underwent a second attack immediately after the first. The fairly mild cases required as a rule at least two months convalescence. Even after nutrition was well established, physical exertion tended to cause dyspnoea and tachycardia.

The mortality in a series of 155 cases treated on the medical service was 20.67. The series included those cases in which the broncho-pneumonia supervened upon some previously existing disease, such as typhoid; also surgical cases that could be transferred to the medical wards for treatment. Naturally the mortality in such groups was higher than in the uncomplicated cases.

The combination of broncho-pneumonia with typhoid fever seemed particularly fatal, three out of four cases dying. Two, however, were admitted practically moribund. The association with major wounds also increased mortality very greatly. Out of thirteen such cases, seven died. Previous state of health and physical condition seemed of less importance in prognosis than in most other diseases. The treatment of this form of broncho-pneumonia as far as we could determine does not differ materially from the treatment of broncho-pneumonia in general.

Prophylaxis is of unusual importance on account of the ready transmission of the disease. All who come in contact with the patient should wear gowns and have the nose and mouth well masked with several thick-

Official History, U. S. A. Base Hospital, Number Thirty-one

nesses of gauze. In a hospital ward the patient's bed should be so screened as to avoid possibility of spraying his neighbor with droplets when he coughs but not sufficiently to interfere with ventilation.

The patient should not be transported any more than absolutely necessary and that only in the earliest stage of the disease. Transportation by ambulance or truck over long distances increases mortality and was responsible for several deaths in one series. The patient should be placed in such a position that he gets plenty of fresh air, preferably with the chill taken off. He should be made as comfortable as possible and not disturbed by frequent examinations. One a day is plenty and it should be made in such a way as to bother him as little as possible.

Careful nursing saves lives, consequently nurses should be told that the responsibility for the cases is in a large part shared by them. Orderlies should be impressed with the fact that the life of a man may depend upon the deftness and gentleness with which they handle him.

Feeding was always more or less of a problem on account of the lack of variety of foods obtainable. However, a limited amount of eggs and milk could always be had so that a fairly satisfactory diet could be prepared. About 1,500 calories per day were given if the patient desired that much food. No attempt was made at forced feeding. If gastro-intestinal disturbances or tympanites occurred diet was immediately cut down. But the rapid emaciation on low diet made an increase desirable when it could be taken. The administration of water at stated intervals was made part of the treatment. The usual amount given was 200 cc. every two hours when the patient was awake. The fluid intake was noted on the chart the same as medicine in order that it could be checked up constantly. For temperature over 103 degrees or restlessness cool sponges were tried. They were given in such a manner as to disturb the patient as little as possible. Some cases were benefited, others distressed by the procedure. In the latter case it was discontinued.

In the medicinal treatment the one valuable drug was opium. If cough was troublesome, sufficient codeine or heroin was given to relieve the patient of his distress. This was often sufficient to enable him to get a good night's sleep. On account of the almost universal incidence of pleurisy, pains in the chest were common. They were sometimes relieved by strapping but the quality of adhesive furnished was so poor that the straps were constantly slipping and became useless over night. Consequently morphine was necessary in most cases to relieve pleural pains. At least enough was given to ensure a few hours sleep every night and to take the sharp edge from the pain at other times.

When there was a tendency toward tympanites the opium derivatives were administered with extreme caution, but not withheld. Some sleep and

Official History, U. S. A. Base Hospital, Number Thirty-one

relief from harassing cough and sharp distressing pains seemed absolutely necessary.

Tympanites was probably less frequent than in ordinary lobar pneumonia but was not rarely seen. The treatment consisted of the usual methods employed—cutting down food, turpentine stupes to the abdomen and various kinds of enemata. Drugs of the type of eserine and pituitrin in our experience, were of little or no permanent value. In the stubborn cases castor oil seemed to be the most efficacious remedy.

Previous to the order requiring administration of large doses of digitalis, it was routinely employed in one of our wards and in the other on selected cases only. The indications were tendency toward rapid pulse or dilatation of the heart. In a few cases it seemed to be of value. On the other hand the routine of administrations of large doses caused a certain amount of gastro-intestinal disturbance which complicated the management of the cases. The indication for the use of this drug in patients with a disproportionately low pulse rate seemed rather dubious.

The use of type one serum, therapeutically, was not possible in this series of cases because in not a single one was type one pneumococcus reported. A few experiments were made in transfusion from convalescent cases to patients seriously ill due to infection with the same types of organism. All the cases selected were considered absolutely hopeless. Each showed a marked temporary improvement, probably due to the effect of the transfusion per se. In one case, in which death had been expected quickly, improvement was remarkable and persisted for thirty-six hours. The cyanosis almost disappeared, the extremities which had been cold became warm, the pulse which had been thready regained good quality and the patient recovered temporarily from his stupor. The results were so promising that the possible therapeutic value of transfusion in severe cases deserves investigation. It is a vastly more powerful circulatory stimulant than any drug.

All cases had to be watched closely for pleural effusion. If the effusion was small or moderate it was not removed. If it embarrassed respiration or circulation it was slowly withdrawn as often as necessary. But few cases went on to frank empyema requiring rib resection. The operations were done by Capt. A. E. Brant, Chief of Surgical Service. Local anesthesia was employed. In those cases too ill to be moved the operation was done on the patient's bed without very much inconvenience and very little discomfort to the patient.

There was no operative mortality, but one case died ten days later due to the development of empyema on the other side.

Lobar Pneumonia: But thirty-seven cases of lobar pneumonia were cared for on the medical service. Of these eight died, giving a mortality of 21.6 per cent. The incidence of the disease was greater during the influenza epidemic. It seemed probable that some of the cases had a relation to

Official History, U. S. A. Base Hospital, Number Thirty-one

influenza similar to that of broncho-pneumonia. Bacteriological study usually showed pneumococcus in the sputum, but in only one case was a type one found.

Influenza: The influenza here as elsewhere occurred in two distinct waves. During the epidemic in May the disease was of trivial character, lasting only a few days. Very few cases were sent in, the men being cared for in their own medical formations. The symptoms were dry mouth, chilly sensations and feverishness, headache, aching in back and limbs, nausea and vomiting and cough. The pulmonary complications were slight. As a rule no rales could be elicited. Out of sixty-six cases there was but one case of broncho-pneumonia. The cardio-vascular system was practically unaffected.

During the epidemic beginning the latter part of August the disease was of more serious character. In the initial stages it resembled the type seen in May, and some of the cases ran a similar course. But as a rule the course was much prolonged. The vast majority had bronchitis with numerous rales, which not infrequently went on to a definite broncho-pneumonia. Acute sinusitis and otitis media were not uncommon. The cardio-vascular system was usually affected, sometimes profoundly, necessitating long convalescence. A few cases had to be reclassified on account of post influenzal myocarditis. A comparison of length of stay for patients leaving the hospital during the following months may be of interest:

	No. of patients discharged	Days in B. H. No. 31
May	51	4.1
September	46	7.4
October	191	21.5
November	144	29.2
December	153	31.7
January	70	48.8

From September on, about twenty per cent of the cases of influenza were evacuated so that the actual length of stay in hospital was somewhat greater than indicated by these figures. Influenza, except in so far as it predisposed to pneumonia, was not found to be fatal among healthy young adults. There was not a single death due to influenza or any of its complications except broncho-pneumonia.

Bronchitis: Various forms of bronchitis were common and except for influenza, the most frequent condition encountered. The climatic conditions of France, together with over-exposure, exhaustion, overcrowding and other factors tending to lower vitality, seemed of most importance etiologically. Most cases responded readily to treatment in hospital.

Tuberculosis: Tuberculosis was an extremely rare condition until after the influenza pandemic, when it became very noticeably more frequent. In this hospital twenty-two cases were proven to have pulmonary tuberculosis

Official History, U. S. A. Base Hospital, Number Thirty-one

and thirty-nine others were sent, after short periods of study here, to the observation centers for tuberculosis. Of the latter group, nearly all that could be traced were later invalided to the United States as cases of tuberculosis.

A statistical summary of respiratory disease cases:

Broncho-Pneumonia:		
Treated in entire hospital		173
Treated in Medical Service		155
Returned to duty as Class "A"	78 or 50.3%	
Transferred for convalescence	45 or 29.1%	
Deaths	32 or 20.6%	
Lobar Pneumonia:		
Treated in entire hospital		45
Treated in Medical Service		37
Returned to duty as Class "A"	17 or 46 %	
Transferred for convalescence	12 or 32.4%	
Deaths	8 or 21.6%	
Total pneumonia cases treated in hospital		218
Total pneumonia cases in Medical Service		192
Returned to duty as Class "A"	95 or 49.5%	
Transferred for convalescence	57 or 29.7%	
Deaths	40 or 20.8%	

	No. Cases	Returned to Duty	Transferred	Deaths
Bronchitis	270	178	92	0
Influenza	671	552	119	0
Pleurisy, fibrinous	14	8	6	0
Pleurisy, sero-fibrinous	30	15	15	0
Asthma	8	2	6	0
Tuberculosis:				
Miliary	1	0	0	1
Pulmonary Active	22	0	21	1
Observation	39	0	39	0
Broncho-Pneumonia	155	78	45	32
Lobar Pneumonia	37	17	12	8
Totals	1247	650	355	42
Percentages		68.17%	28.47%	3.36%

*N. B.—All computations are made on the basis of cases treated solely by the Medical Service.

Gastro-Intestinal Diseases

Of the gastro-intestinal disorders most were acute disturbances accompanied by diarrhoea. The principal causes were bad food, bad water and exhaustion. These cases usually responded readily to simple measures such

Official History, U. S. A. Base Hospital, Number Thirty-one

as rest in bed, castor oil, low diet and simple diarrhoea mixtures. The more stubborn cases responded as a rule to a regime of calomel and castor oil; 0.2 gm. of calomel being given divided in six doses one-half hour apart and followed the next day by castor oil.

It was always necessary to be on the lookout for dysentery, as it was being reported constantly. In this hospital, although many specimens were sent to the laboratory, no cases of bacillary dysentery were discovered. Five cases of amoebic dysentery were found by the method of examining plugs of rectal mucus at the bedside. Of these cases one died as a result of perforation of the bowel. The others recovered.

Cardio-Vascular Diseases

The number of cases of cardio-vascular disease was remarkably low in view of the amount of valvular heart disease and effort syndrome seen by the writer and others who acted as cardio-vascular examiners in the cantonments.

But ten cases of valvular heart trouble were found and fifteen cases, exclusive of gas intoxication, were classified either as effort syndrome or disordered action of the heart. There was but one case of general arteriosclerosis.

Nephritis

Nephritis was comparatively rare. There were but five cases of acute nephritis, of which perhaps three might have been classed as trench nephritis.

Diseases of Endocrine Glands and Metabolism.

The tremendous physical exertions, terrific nervous strains and dietary irregularities incident to fighting might have been expected to cause increase in metabolic disorders and disturbances in glands of internal secretion. There were two cases of exophthalmic goitre, two of simple goitre, one of gout and not a single case of diabetes, mellitus or insipidus.

Acute Infectious Fevers

Until the time of the Argonne drive, typhoid fever was very rarely found. During this battle many of the men were forced to drink water from whatever source it could be found. Consequently the admissions for typhoid and para-typhoid increased somewhat. At the same time there was a mild attack in Contrexeville. Four of the enlisted personnel of the organization developed typhoid. Two patients developed typhoid and one para-typhoid beta. All of them had been in the hospital too long to have acquired the infection previously.

It was found that two of the cases among personnel might have been acquired through the violation of the technique established for the care of

Official History, U. S. A. Base Hospital, Number Thirty-one

typhoid. None of the others could be explained by contact. A rigid control of drinking water and re-vaccination of the personnel stopped the local epidemic completely. The incidence of enteric showed no particular relation to the time of vaccination. The severity of the disease seemed somewhat less than that seen among the unvaccinated.

There were no deaths among the uncomplicated cases; two were admitted moribund, with a combination of typhoid fever and broncho-pneumonia. The other case who died had severe intestinal hemorrhages, was greatly improved following transfusion, then developed broncho-pneumonia and bilateral parotitis. In all, twenty-five cases of typhoid and four of paratyphoid were handled by the service. After the middle of November, all typhoid cases that could be transported were cared for at the hospital for contagious diseases at Vittel.

Trench Fever

There were but three cases in which the diagnosis of trench fever seemed fairly certain. There was no way of proving the diagnosis in these cases but the clinical picture closely resembled the description of that disease. A fairly large number of cases were sent to the hospital labeled as having trench fever, but further observation showed the diagnosis to be erroneous.

Contagious Diseases

Among the 8,762 cases handled by this hospital, there were admitted or developed after admission fifteen cases of diphtheria, fourteen of scarlet fever, two of measles, five of epidemic meningitis and ten of mumps. These cases, except mumps, were sent, if transportable, to the hospital for contagious diseases at Vittel. Most of the men were admitted for some other condition during the period of incubation of the contagious diseases. A few of the cases, particularly of diphtheria, developed here, but in no instance could any such cases be traced to contact with any pre-existing case of the same disease. Contagious diseases were entirely of a sporadic character as far as this institution was concerned.

Intestinal Parasites

These conditions were relatively unimportant, the only one of any consequence being the hookworm, of which seven cases were discovered on the medical service. It was necessary to keep this condition in mind especially among the southern troops when the symptoms were vague and no definite evidences of disease were discoverable by the usual examinations. A history of ground-itch could usually be obtained.

Neuro-Psychiatric

Unfortunately, during the busiest period, the hospital was without the services of its neuro-psychiatrist, Capt. P. G. Borden, who was detailed for

Official History, U. S. A. Base Hospital, Number Thirty-one

duty elsewhere. Consequently the responsibility for the neuro-psychiatric cases rested with the medical service working in collaboration with Major C. D. Humes, consultant in neuro-psychiatry, or Capt. Borden, during the time he was present. This work was of no particular medical interest, except the group of cases sent in with some diagnosis indicating that the condition was thought to be due to some form of war neuroses. Naturally quite a few cases so diagnosed were found to be suffering from some definite medical conditions such as tuberculosis, cardio-vascular disease, etc. Others were true concussion, a number were simply exhausted and were entirely well after a few days sleep and food.

Of the 147 cases diagnosed here as psychoneurosis, the vast majority responded quickly to a regime of instruction, plenty of work and exercise. First the men were taught that the neurosis or "shell shock," of which some of them were rather proud, was an evidence of weakness to be greatly deplored and overcome as quickly as possible. Whenever possible they were put on the heavy work details in order that they might become physically tired and their attention diverted from their mental disturbances. Out of one series of 114 cases all but seven were returned to duty in less than four weeks. In the refractory cases a history of previously existing nervous instability could usually be obtained.

The statistics of the service, compiled according to the principal diagnosis in each case, follows, the number of cases representing the number discharged in each period:

Prepared February 3, 1919

GAS INTOXICATION

RECAPITULATION

Percentage of cases transferred for further
convalescence or treatment

Percentage of Medical Cases died

N. B.—*Secondary conditions treated; results computed with primary diagnosis.

THE SURGICAL SERVICE

Major A. E. Brant, M. C., U. S. A.

Personnel

Frequent changes were made in the personnel of the surgical division of U. S. A. Base Hospital No. 31 to meet the requirements of surgical teams and other emergencies in the advanced areas. Many of the surgeons who joined the two units which made up the hospital before reaching France were away from the base much of the time, casual officers taking their places in Contrexeville.

The following officers were members of the surgical staff during active work:

Lt. Col. E. S. Van Duyn, Major C. E. Coon, Major A. E. Brant, Capt. W. K. Allsop, Capt. D. A. Nesbitt, Lt. C. H. Moses, Capt. E. R. Thomas, Capt. D. B. Phillips, Capt. Arthur D. Meyers, Capt. E. V. Sweet, Capt. J. U. Buchanan, Capt. M. A. Cain, Capt. C. O. Barney, Capt. L. R. Hill, Capt. J. M. Hench, Capt. Alonzo H. Meyers, Capt. George Laws, Lt. C. V. Tyner, Capt. S. D. Maiden, Lt. Leo Dretzka, Lt. W. A. Bressmer, Lt. W. C. Duffy, Lt. J. M. Hundley, Lt. D. H. Hallock, Lt. R. E. Amos, Lt. A. L. Coyle, Capt. J. V. Blake, and Major J. L. Washburn, Major F. J. Bierkamp and Major G. S. Britten, of the specialty service.

Lt. Col. James A. Sherbondy was chief of the surgical service upon arrival of the unit in France. He was succeeded, upon his departure for detached service, by Lt. Col. Van Duyn who, during the period of operation, became director and consultant of the surgical department. When Lt. Col. Van Duyn was detached for duty with his surgical team Major Brant became Chief of Service and continued in that capacity until he was made Commanding Officer of the Hospital. Major C. E. Coon then assumed direction of the department.

Major Coon was orthopedic surgeon, members of his staff being Capts. Hench and A. H. Meyers. The specialty service was handled by Maj. J. L. Washburn, ophthalmologist; Maj. G. S. Britten, oto-laryngologist and brain surgery; Maj. F. J. Bierkamp, oto-laryngologist, and Capt. S. D. Maiden, who assumed charge of the department when Major Washburn became Commanding Officer. The dental service was in charge of Capt. W. H. McCreary and Capt. F. W. Ward. Resuscitation work in connection with surgery was handled by Maj. C. C. Wolferth, who was succeeded by Capt. E. V. Sweet. Wound culture laboratory was directed by Capt.

Official History, U. S. A. Base Hospital, Number Thirty-one

David Farley, assisted by Sgt. Frank H. Judson. Capt. Orrin D. Hudnutt and Capt. Davis Spangler directed the X-Ray laboratory.

Surgical wards were at various times in charge of the following staffs: Ward No. 1, Maj. A. E. Brant, Capt. W. K. Allsop, Nurses Esile G. Mohler and Catherine Bonner, and Sgts. 1c J. L. Heffernan and H. S. Gaskeen; Ward No. 2, Maj. G. S. Britten, Capt. J. U. Buchanan and Lt. C. H. Moses, Nurses Blanche Lewis, Grace Cotton and Marguerite Findlay, and Sgts. Paul C. Meyer, William W. Dosser and Walter A. Church; Ward No. 3, Maj. A. E. Brant, Capt. D. B. Phillips, Capt. E. R. Thomas, Capt. D. A. Nesbitt, Nurses Edith Hadsall and Mary Murphy, and Sgts. Gaskeen, Church and Meyer; Ward No. 4, Capt. A. D. Meyers, Capt. J. U. Buchanan and Capt. L. R. Hill, Nurses Pearl M. Worley and Martha Stirling, and Sgt. 1c Cyril P. Deibel; Ward No. 6, Capt. W. K. Allsop, Capt. E. V. Sweet and Capt. M. A. Cain, Nurses Grace Harris, Winifred Bullock and Louisa Cramp, and Sgts. Allan R. Forsyth and Walter L. Meuser; Ward No. 7, Maj. C. E. Coon, Capts. J. M. Hench and A. H. Meyers, Nurses Esther Erickson and Frances King, and Sgt. R. D. Fenton; Ward No. 8, Capt. M. P. Jones, Capt. C. O. Barney and Maj. G. S. Britten, Nurses Hattie Hyland and Anna Roberts, and Sgts. D. P. Cady, Hugh C. Cover and W. W. Dosser.

The Surgery was under the supervision of the chief of the service. Charge nurses were Miss Mary Mitchell and Miss Agnes Sharkey, with Nurses Clara A. Wack, Dorothy B. Millman and Gladys Nonemaker permanently assigned. Enlisted men on permanent duty in the Surgery were Sgts. 1c Heffernan and E. J. Eberling, Corp. Samuel J. Holt, and Surgical assistants Harold Funkhouser, J. Paul Snead and John M. Cavanaugh. Arthur C. Thomas was in charge of sterilizers. Staff anesthetists were: Capt. McCreary, Nurses Mary L. Phillips, Esile G. Mohler and Sgt. Eberling. Other members of the medical staff, nurse corps and enlisted personnel assisted in emergent periods.

Administration

Insistance on the closest possible supervision from the moment of removal from hospital train on arrival to the hour of discharge to duty or evacuation to the rear was responsible, in a large measure, for the success of all surgical work at Base Hospital No. 31.

Every effort was made to minimize handling of patients, thus saving much valuable time during rush periods and eliminating confusion to a marked degree. At all times utmost regard for the personal comfort of patients was insisted upon from the arrival of hospital train or ambulance to the day of evacuation or discharge.

Upon classification by the detraining officer all stretcher cases were sent to one of two places. Post-operative fractures were sent to the Bone and Joint hospital immediately, where records and dressings were exam-

Official History, U. S. A. Base Hospital, Number Thirty-one

ined by the officer in charge and patient either assigned to bed, or elsewhere should further emergent attention be needed. Pre-operative cases of all descriptions were sent to the dressing room in Building No. 8, where old dressings were removed, exact nature of wound ascertained and future determined. If in the judgment of the examining surgeon the patient required immediate operation he was dispatched to the X-Ray room, conveniently situated between the dressing room and surgery.

From the operating room patients were returned to the ward designated for the care of that particular type of wound. Cases not calling for immediate surgical attention were dressed and assigned to the proper ward and put to bed, awaiting the first opportunity at the X-Ray room and surgery. A close adherence to this policy made it possible to give required prompt attention to the most seriously wounded, while others were allowed to profit by rest and food prior to operation.

Walking and sitting cases sent from the train to the bath house by the detraining officer were given a second superficial examination by a surgeon to determine if a tub bath was advisable. Following the bath such patients were sent to the X-Ray room (either at the regular Hospital X-Ray, or to the X-Ray in the Bath House in rush periods) or direct to the proper surgical wards.

The work of clearing cases through to the wards was carried on with considerable dispatch, all available personnel, including officers, nurses and enlisted men, displaying most unselfish devotion to the work. Medical officers and members of specialty services, nurses and properly trained enlisted men were pressed into service as anesthetists, rendering most efficient aid. The comparatively small staff of surgeons worked long hours, immediately following arrival of convoys, and then with only too brief respite went to the wards to assist with dressings. Unlike many other base hospitals, there were no surgical teams from other institutions available, the depleted staff doing all the work. A single surgical team was attached but its service was required in the wards. The fact that a number of nurses and enlisted men became proficient as surgical assistants proved a great advantage.

During a considerable period, when serving the American forces in their independent offensive, our hospital was transformed into an evacuating base hospital and was required to evacuate its beds within a comparatively short time after arrival of convoys. This condition was created because of our location quite close to the theatre of activities. At this time all cases were divided into four general classes, after operation, as follows:

- (a) Cases ready for duty in ten days to two weeks;
- (b) Cases not ready for duty in from ten days to two weeks;
- (c) Cases immediately evacuable;
- (d) Cases not able to stand travel and so non-evacuable.

Official History, U. S. A. Base Hospital, Number Thirty-one

As a result of this classification, only two classes of patients were retained in the hospital, all others being evacuated at the first opportunity. Class A, or cases ready for duty within two weeks, were held that they might return to their command with least possible wastage of time. Class D, or cases too ill to permit of transportation, were retained until their condition permitted proper disposition. Because of this circumstance much special treatment was not used, patients being prepared for evacuation as rapidly as possible. The same cautious methods followed in our base hospital work were followed religiously through the period of duty as an evacuation unit, every effort being made to insure against premature transportation of patients.

The surgical service maintained facilities for transfusion, an accurate list of typed donors being available at all times. Transfusions were given in cases of serious wounds and to counteract general infection as well as to supply fluid when patients seriously ill during period of early convalescence ceased to make the progress normally expected, or lost weight unduly. Several medical officers were available for the work of transfusion at all times.

During periods of special casualty operation work was in charge of two officers, the chief of the surgical service and an assistant, one being on duty at all times, thus insuring the presence of a surgeon to sort out cases for the surgery, for consultation and general supervision of activity. Never can too much be said of the work in the surgical wards. The untiring efforts of the nurses and enlisted men in doing dressings and routine ward work, regardless of their personal physical condition, was a big factor in the successful operation of the hospital during the strenuous periods of emergency. It was not uncommon to find nurses at work during the few hours of off duty to which they were entitled. The officers of the surgical staff, without exception, showed a keen devotion to duty, which, combined with exceptional technique and good judgment, greatly facilitated the work. That a good operation poorly cared for in the wards is ruined, is generally conceded. It is equally true that many a poor operation has produced excellent results merely because of good post-operative attention.

Surgical Problems

Professional problems which have arisen in the operation of Base Hospital No. 31 are discussed briefly in the answers to a questionnaire of the American Red Cross Research Society. This review was prepared under the direction of Lt. Col. James A. Sherbondy, then Commanding Officer, and represents a concurrence of opinion of the following members of the medical and surgical staffs of the institution: Lt. Col. E. S. Van Duyn, Major Brant, Major Wolferth and Major Coon. The review taken up under the classifications of the questionnaire and constituting a series of commentaries on subjects of professional interest, follows, in part:



THE PICTURES

Upper center: A corner of the special operating room for minor surgery.

Top: A section of the sterilizing room, showing nurses preparing dressings.

Bottom: The Surgery, in the foyer of the Casino Theater.

Lower center: Part of the largest hospital ward in the world, where 250 patients were accommodated during the rush period.

I. **General Surgery:** Abdominal cases should not be transported from the front until the patient is in good condition, temperature down, bowels moving, and nourishment being taken without discomfort; a minimum of six days. Cases with through and through chest wounds, uncomplicated by a massive haemo-thorax, diaphragm injury or fractured rib, travel well early. The types of cases most injured by travel are abdominal, complicated chest, fractured femur, shock and hemorrhage, and extensive cranio-cerebral injuries. The condition of wounds arriving at the base was best when plain gauze had been used as dressing. They were not in good condition when dressed with vaseline gauze. No opinion can be given of comparative value in the use of Dichloramine-T, Carrel-Dakin, Bipp or Flavine. Rubber-tube drainage is very satisfactory in badly infected wounds, but prevented the possibility of delayed primary closure in clean wounds.

II. **Gas Gangrene:** Ligation of main artery of a limb, tight bandages, tight packing of a wound, insufficient debridement and low vitality from shock and hemorrhage singly or in combination are predisposing causes of gas gangrene. The combination frequently seen of insufficient debridement, tight packing of a wound, with tight bandaging has been a marked predisposing cause in cases admitted to this hospital. Local operations should be done where the gas infection or gas gangrene is confined to a muscle or muscle group and the circulation of the extremity is good. Amputation should be done where the gas infection has spread beyond muscle groups; where the circulation has been badly damaged and in cases where it is associated with extensive muscle injury and comminuted fractures of the large bones. In all cases developing secondary to a good primary operation and in cases where the patient's resistance is very low from shock or hemorrhage, amputation is usually necessary. Our opinion of the value of anti-gas sera is undecided. We feel that it may have a prophylactic value. It is never justifiable to base the decision between local operation and amputation on the bacteriological findings alone. The temperature in gas infection is usually moderate except cases with an associated streptococcic infection. The pulse is very rapid, almost invariably, with low tension. Gas gangrene seldom attacks tissue other than muscle with the exception of the liver. The collection of blood in tissues, haematoma of haemo-thorax is frequently infected.

III. **Debridement:** A good debridement should include the removal of no visible skin, free incision in anatomical lines, thorough removal of all devitalized tissue, removal of all foreign bodies and blood clots, the free incision of fascia so as to leave the wound free from tension, the removal of muscle or muscle groups which have lost their blood supply on account of injury or operation, absolute haemostasis, a careful regard to the avoidance of injury to both blood vessels and nerves. The entire operation should be done in plain view, counter incisions or incision made

Official History, U. S. A. Base Hospital, Number Thirty-one

if necessary. Violation of all the above points has been noted in cases received in this hospital. The most common serious error seemed to be insufficient excision of the depths of the wound, faulty haemostasis necessitating in the mind of the operator tight packing of the wound with gauze and a tight bandage.

IV. Tetanus: We have had one case of tetanus. This case recovered. There are no contra-indications to the giving of a second dose of anti-tetanic serum, if an anaphylactic individual is properly desensitized. Have not seen local tetanus and we have had no cases of late tetanus. We have isolated the tetanus organism late in a number of wounds. We ascribe our absence of late tetanus to the repeated use of serum before operation or manipulation.

V. Delayed Primary Closure of Wounds: No opinion can be based on the few cases of delayed primary closure of wounds done in this hospital. There has been no loss of life or limb.

VI. Pre-Operative Cases: All through and through machine-gun or rifle-bullet wounds, uncomplicated by fracture or blood vessel injury of sufficient extent to produce tension from a haemotoma, require no operation, unless infection develops. Nerve lesion alone is not sufficient indication for immediate operation in these cases. Cases received pre-operative under conditions stated above have done exceedingly well. Cases received pre-operative with wounds of the scalp, face and neck, through and through wounds of the hands and feet, even with fracture, and all superficial wounds, including those of the gutter type, at this base have done well. Penetrating shell-fragment wounds of the thigh, buttocks, calf, thorax, shoulder and sub-scapula region received pre-operative have done badly. Types of cases as listed above as having done well are suitable for pre-operative evacuation. The advantage of a pre-operative train is that during a rush a larger number of cases, properly selected, can be placed in the hands of a greater number of competent surgeons early.

VII. Chest Surgery: Chest cases with an open thorax, a massive haemo-thorax, those complicated by diaphragm injury or comminuted fracture of a rib and those having a large piece of shell fragment in the lung or pleural cavity should be operated in the front area. Indications for operation at the base includes all the above conditions when received as pre-operative at the base; all cases when high-explosive shell fragments within the lung or pleural cavity, on account of the extremely high probability of secondary infection, notwithstanding that these cases have been received in good condition and may have a moderate haemo-thorax. All cases showing infection of the retained blood in the pleural cavity, empyemas and local lung abscesses should be operated. It should be definitely understood at the bases that because a case arrives pre-operative, in good condition, it does not mean that those forward had decided this

patient should not be subsequently operated, their decision resting solely on the advisability of immediate operation or transportation to the base.

The anesthetic of choice at this Base Hospital is nitrous-oxide and oxygen combined with local blocking. The operative technique should include free incision, allowing visible exploration, careful toilet of the pleural cavity, removing all blood clots; complete haemostasis and removal of all rib fragments by resection. In addition to the usual surgical care, the patient should be under the careful observation of a good internist.

VIII. Secondary Hemorrhage: Secondary hemorrhage occurs in cases of prolonged wound sepsis. Predisposing causes of secondary hemorrhage are faulty debridement, insufficient drainage and improper ligation. The general treatment of secondary hemorrhage consists of immediate vessel ligation, free incision for drainage, immediate transfusion if much blood has been lost, and a thorough chemical sterilization of the wound.

IX. Knee-Joints: In through and through machine gun or rifle wounds of a knee-joint without extensive fracture and in the absence of marked tension from hemorrhage into the joint, results are better, in our opinion, with non-operative treatment. If there is marked tension from hemorrhage, the blood should be aspirated and the joint not opened if the fluid is sterile. If proper debridement has been done and if the wounds are not complicated by muscle injury we believe in complete closure; if there is an associated muscle wound, closure of the capsule and fascia only; if infection is present, the incision should be left entirely open. It is our opinion that shattering of the head of the tibia involving the joint, is more serious than that of the condyles of the femur. Knee injury involving the joint and popliteal artery, which would necessitate ligation of the popliteal, demands immediate amputation. Infection of the knee-joint with streptococcus haemolyticus associated with comminuted fracture of either bone entering the joint, generally demands immediate amputation. More error has been in knee-joint surgery, with infection, in conservation than in amputation. In all cases arriving at this hospital with excision of the patella, the knee-joint has been infected and functional results have been very bad. It is our opinion that all joints should be immobilized during the acute stage following the injury. Where the function of the joint can probably be saved antiseptic treatment is contra-indicated.

X. Antiseptics: In conditions where the character of the wound shows progressive infection, assistance from outside to aid tissue reaction would seem called for, and in these cases the addition of active chemical sterilization of a field would seem a sounder principle than plain sterility. List of antiseptics in order of their availability at the base includes tincture of iodine solution, Dakin solution, Dichloramine-T and Lysol.

XI. Anesthetics: We value the nurse as an anesthetist very highly both for her efficiency and because her use conserves a medical officer.

Official History, U. S. A. Base Hospital, Number Thirty-one

For the same reason we would still more recommend an adequately trained corps man for an anesthetist, for his use not only conserves a medical officer but also a nurse and his physical endurance is greater.

Regional local anesthesia is very satisfactory in operation about the face and head, including brain wounds. It should not be attempted for extensive debridement. We consider that spinal anesthesia has a very limited field, if any, in war surgery. Gas and oxygen, with or without local blocking, is the anesthetic of choice in nearly all cases of general anesthesia and is especially indicated in all secondary operations where the patient's resistance is lowered from infection and in thoracic operations. The use of gas and oxygen as a general anesthetic in the class of cases enumerated above has given better results at this base than could have been expected with other anesthetics. We have employed a modified DePauge mixture with a lower percentage of chloroform for anesthesia in a fair number of cases in this hospital. It has been very saving in time and has been entirely sufficient for short operations, and seems acceptable for use by a novice without danger under proper supervision.

XII. Fluids. We have not used sodium bicarbonate solution and have seldom used saline solution in the treatment of shock and hemorrhages. Intravenous saline infusions give better results for immediate effect than the giving of water by mouth or rectum, or sub-cutaneously. We prefer saline solution to gum-salt solution. Our limited experience with gum-salt solution has been disappointing. Blood transfusion, in our experience, is infinitely superior to the use of gum-salt or saline solutions in the treatment of shock or hemorrhage. The ill-effects we have noted in the use of gum-salt solution have been failure to react, occasional chills, and in a number of cases fallen blood pressure.

XIII. Blood Transfusion: We prefer the citrate method of blood transfusion. We have had no reactions in cases properly grouped. In prolonged infections, blood transfusion usually is followed by temporary appreciable results. In an occasional case it has seemed life-saving. Abundant voluntary material is easily obtained from convalescent patients, when the purpose of the procedure is explained to them. Our only difficulty encountered was occasional coagulation of blood, discovered to be due to the use of insufficient amount of citrate solution.

XIV. Amputations: In the cases coming to this hospital, amputated by the guillotine method and those done here on account of infection or gas gangrene, the results of this operation have seemed to us superior to any other method. The medio-tarsal amputation seems seldom, if ever, justifiable. The Symes amputation is usually unsatisfactory; the lower third amputation appears more unsatisfactory; amputation about the middle of the leg gives better results. The rule that the stump of the lower extremities shall have no terminal scar is not good. We do not feel that it is correct that the stumps of upper extremities should always have a

Official History, U. S. A. Base Hospital, Number Thirty-one

terminal scar. Amputations through the knee-joint are not recommended. We see no advantage in the conical shape of the bone stump. In operating near the knee-joint the amputation should be done below the insertion of the patellar tendon or above the expansion of the condyles of the femur. In operations about the elbow joint an amputation should be done below the insertion of the biceps tendon or above the expansion of the condyles of the humerus. Amputations through the elbow joint are seldom, if ever, justifiable.

XV. Head Injuries: Lacerations of the scalp should be explored surgically without exception for fracture even if fluoroscopic report is negative. All high-explosive shell fragments, bone fragments, and any other foreign material should be removed from the brain if possible by a technique which does the least possible damage to uninjured brain tissue. The magnet does not seem to be a useful instrument in extracting foreign bodies. We have seen late brain abscesses.

During the entire period of activity the surgical department handled more than 4400 patients, about three-fourths of which were transferred to the interior or to the United States for further treatment and convalescence. Of those remaining more than 900 were returned to duty, while the death rate for the period ending December 31, 1918, when 415 cases remained on the surgical service, had been 11 deaths per 1000 patients handled. A statistical report prepared as of January 1, 1919, gives an approximate count of all cases handled, the location of operation and results:

Patients admitted to Service	4419
Patients discharged to duty	769
Patients transferred to other hospitals	3179
Cases remaining January 1, 1919	415
Deaths	58
Deaths per thousand (rate)	11

Location of Operations

Head, neck and face	54
Eye and eyelid	10
Ear, nose and throat	81
Chest, back and abdominal wall	53
Thorax, ribs, pleura and lungs	33
Abdominal	62
Shoulder	57
Arm	66
Forearm	29
Elbow joint	9
Hand, wrist and fingers	56
Buttocks	23

Official History, U. S. A. Base Hospital, Number Thirty-one

Pelvis	3
Hip	15
Thigh	144
Knee	33
Knee joint	26
Leg	102
Foot and ankle	56
Penis and scrotum	35
Rectal	45
Inguinal Hernia	36
Hydrocele	4
Vericocele	3
Pyemia	1

Amputations

Fingers	8
Arms	8
Thighs	12
Legs	17
Toes	2

Operations for Gas Gangrene

Legs	9
Arm	6
Foream	2
Thigh	15
Testicle and Scrotum	1
Knee	1
Foot	4
Shoulder	2
	<hr/>
Total	40

REVIEW OF SPECIALTY SERVICE

Major John L. Washburn, M. C., U. S. A.

The Eye, Ear, Nose and Throat department was established in the Souveraine, when that hotel building was taken over for use for general headquarters and specialty services. The quarters, although small, were accessible and capable of efficient arrangement. The equipment of the department consisted of the regular army cases for eye, ear, nose and throat, together with a complete outfit for refraction. These were supplemented by some special instruments including a magnet which proved ample for all requirements of the department.

The work until June, 1918, was largely with French population, who came from surrounding territory, there being no French specialists practicing even in the larger cities, all having been drawn into the French Army. Perhaps the greatest military activity of the department was in the care of gassed cases, more than 1,200 of which were treated at Base Hospital No. 31. Of the total number of gas cases, American and Allied, however, only about 25 per cent required special attention. A great number of the remainder were cared for in routine ward orders, when symptoms were not especially acute.

Contrary to early expectations the injuries occurring in our specialty constituted only a small proportion of the total casualties and thus the share of war surgery was small. Despite the small number of emergency operations performed there have been occasions when most unusual surgical conditions have been cared for. The daily clinics, conducted since the arrival of the first large number of patients, have provided much activity for the department, more than 3,300 patients being cared for. Of this number 1,833 attended the eye clinic. Two hundred and twenty-six pairs of glasses were fitted.

The surgical staff of the department originally comprised Major John L. Washburn in charge of the Eye department and Major Frederick J. Bierkamp, in charge of the Ear, Nose and Throat department. Major George S. Britten, who was assigned to the command as a member of Hospital Unit G, attached March 13, 1918, joined the department in charge of ear work, combining with it the brain cases and their surgery. Major Bierkamp was detached on August 3, joining Base Hospital No. 21 at Rouen, where he had charge of the heavy eye, ear, nose and throat work. Upon his departure Major Britten assumed charge of both departments. Capt S. D. Maiden of Base Hospital No. 52 was attached on October 1, assuming

Official History, U. S. A. Base Hospital, Number Thirty-one

charge of the eye department, Major Washburn having become Commanding Officer of the Hospital. All members of this department have assisted in the operation and dressing rooms during periods of emergency and in the movement of patients. This service together with a large number of consultations noted only on field medical cards swelled the department's contribution to the unit's strength.

Summary of the Work of the Eye, Ear, Nose and Throat Department

Clinic Patients: Eye	1833
Clinic Patients: Ear, Nose and Throat	1488
Number of glasses fitted	226

Operations Performed

Eye:	
Cataract Senile	1
Iridectomy	1
Conjunctival flap for wound of cornea	1
Enucleations	4
Eviscerations	5
Magnet applications	1
Removal of F. B. by magnet	1
Removal Lachrymal sac	1
Removal Chalazium	9
Total number blind patients	3
Ear:	
Mastoidectomy	5
Removal of polypi, ear	2
Suture of ear	2
Nose and Throat:	
Enucleation tonsils and adenoids	81
Submucous operation, nasal sept.	6
Tubinectomy	1
GSW nasal bone	1
Removal of shrapnel from post ethmoid region	1

LABORATORY

Capt. David M. Farley, M. C., U.S. A.

Although the Central Laboratory at Contrexeville did the laboratory work not only for Base Hospitals No. 31 and 32, but, in some instances, for other hospitals, the record of its activities from the date of its establishment on April 8, 1918, is a fair chronicle of the laboratory needs of Base Hospital No. 31 and the method of meeting them. Although for several weeks following inception the Central Laboratory was under the general direction of an officer of another unit, the period of greater activity saw officers of Base Hospital No. 31 in executive charge. Detail work in various departments was carried on with absolute satisfaction for both hospitals.

The history of the unit laboratory dates back to the time of organization when Capt. Charles C. Wolferth was placed in charge of the laboratory department with Lt. C. M. Reed as assistant. Lt. David Farley assumed charge while the unit was in training at Allentown, Pa., Capt. Wolferth being transferred to the medical staff. Lt. William H. Bunn succeeded Lt. Reed as assistant. On November 3, 1917, Lt. Farley and Lt. Bunn were ordered to Rockefeller Institute for instruction, remaining three weeks.

On arrival in Contrexeville a laboratory was established, prepared to do gross and microscopic pathology, bacteriology and clinical pathology. At the time of the arrival of the first patients the laboratory personnel consisted of Lt. Farley, Lt. Bunn, Pvt. 1c Frank H. Judson, Pvt. 1c Raymond Johnston and Pvt. Merrill R. Fox. Hospital Unit G, on March 13, added to the laboratory forces Lt. Walden E. Muns, bacteriologist of Syracuse, N. Y., and his assistant, Pvt. 1c Walter R. Howlett.

During the fifteen day period before the establishment of the Central Laboratory little laboratory work was demanded, the patients being, for the most part, convalescents from other hospitals. A few hundred specimens were examined. On April 8, 1918, Colonel J. F. Siler, Director of Laboratories and Infectious Diseases, A. E. F., recommended the pooling of the laboratory equipment of Base Hospitals Nos. 31 and 32 and the formation of a Central Laboratory. He also recommended the formation of a number of smaller subsidiary laboratories in the wards of the two hospitals for the handling of clinical pathology. The fact that the two hospitals occupied thirteen distinct and somewhat separated buildings necessitated some such arrangement. The following office personnel and division of work was decided upon at this time:

Official History, U. S. A. Base Hospital, Number Thirty-one

1. Lieut. Scott R. Edwards, O in C and Serology.
2. Lieut. David M. Farley, Wound Bacteriology.
3. Lieut. Elmer Funkhouser, Clinical and Anatomic Pathology.
4. Lieut. Walden E. Muns, General Bacteriology.

Seven rooms on the second floor of the Hotel Harmand were selected as the location of the Central Laboratory. Work tables, cabinets, an incubator room, etc., were built. Plumbing was installed. A storeroom, animal house and a cold room were established. A common mortuary was fixed up in the basement of the Hotel Harmand. Six subsidiary laboratories were established in the following hotels respectively: the Cosmopolitan, the Providence, the Royal, the Martin Aine, the Continental and the Harmand. Enlisted men were trained to do clinical pathology. These men were selected from medical students, pharmacists and prospective medical students. The enlisted personnel of the Central, subsidiary laboratories and mortuary consisted of the following men: Sgt. Frank H. Judson, Sgt. Donald Westphall, Sgt. Hale H. Hollingsworth, Sgt. Raymond Johnston, Sgt. Walter Howlett, Sgt. Paul A. Vanderschouw, Sgt. Beryl Shearer, Sgt. Pierre Morgan, Corp. Merrill R. Fox, Corp. Paul A. Mathews, Pvt. 1c Louis S. Stuart, Pvt. 1c Dickson Lynch, Pvt. 1c Edward H. Newell, Pvt. 1c Harry W. Fisher.

Lieutenants Farley and Edwards with Sgt. Judson and Corp. Mathews were ordered to Epernay on April 13, 1918, for a ten days course in wound bacteriology under a French bacteriologist. On May 14, 1918, Lieut. Edwards was relieved from further duty at this center. Lieut. E. J. Wehman was assigned to the laboratory in place of Lt. Edwards. Lt. Farley became Officer in Charge. On April 26, 1918, Lt. Funkhouser was ordered to the 42nd Division. He was ordered back to resume his former duties at Contrexeville on June 21, 1918. Lt. E. J. Wehman was ordered to Mobile Hospital No. 39 on June 30, 1918, returning for duty at Contrexeville July 29, 1918. Lt. Funkhouser was ordered to Dijon for a course in serology, June 29, 1918, returning to Contrexeville August 7, 1918.

The laboratory organization was in good working order by June 1, 1918, with the exception of the proposed Serology Department. Upon Lt. Funkhouser's return from Dijon this department was established, July 20, 1918. From that time it did the serology for the center, Base Hospitals Nos. 31, 32, 23, 36. In addition this department had charge of the anatomico-pathology for Base Hospitals Nos. 31 and 32. Lt. Wehman was placed in charge of Clinical Pathology on July 31, 1918, and continued this work.

The volume of work increased steadily from June 1 to November 1, 4,500 tests being done in the month of October. This included 121 post mortems. Detailed statistics of the work done follows:

- [1.] Methods of collecting and transferring specimens: Sterile test tubes, sterile swabs and glass slides were placed in each ward. Also a sufficient number of wide-mouthed bottles for such speci-

Official History, U. S. A. Base Hospital, Number Thirty-one

mens as urine and feces was furnished. Specimens were brought to the laboratory by ward orderlies.

- [2.] Method of getting information to attending medical officers: Routine reports were sent out by messenger twice daily, morning and afternoon. Urgent reports were telephoned.
- [3.] Methods of keeping records: Central Laboratory: Duplicates were kept of all reports sent out. All reports were given a serial laboratory number and entered in one book. Reports were signed for by the sergeant of the ward upon delivery. Wassermann reports were indexed alphabetically according to name of patient. Postmortem reports were given a separate number in serial order.

All duplicates were filed of lists of expendable and non-expendable property concerning the laboratory. All communications and orders from the Central Department Laboratory were filed in one place according to date. Duplicates of requisitions, official letters, communications to C. O.'s, sanitary reports, etc., were kept in appropriate files. General and wound bacteriology reports were kept separately according to serial number. Monthly reports were filed.

Subsidiary Laboratories: Each specimen was recorded in a ledger with name of patient and other clinical details. A duplicate was kept of the results of the test. Reports were signed for by sergeant of ward upon delivery.

Extent to which laboratory was of service in: A Clinical Pathology: Six laboratories for clinical pathology were established. The work done mainly by enlisted men trained by laboratory officers. This plan succeeded very well, the enlisted men doing unusually good work. An average of 1,500 tests were done monthly.

(b) Anatomico-Pathology: A total of 231 postmortems were done May 21 to December 1, 1918. During the month of October 121 postmortems were done. There was little demand for surgical pathology.

(c) Bacteriology: This department has probably seen more service than any other laboratory department. An average of 550 cultures were made monthly.

(d) Serology: This department was not established until July 15. Previous to this time specimens were done at U. S. A. Laboratory No. 1. From this time on an average of 140 tests were done monthly from the four base hospitals, Nos. 31, 32, 23, 36.

(e) Chemistry: There was little demand for the more elaborate tests of physiological chemistry. The Central Laboratory was not equipped to handle this work.

(f) Epidemiology and Sanitary Survey: The sources of water supply were checked from time to time for determination of potable and non-potable

Official History, U. S. A. Base Hospital, Number Thirty-one

waters. The personnel of the two base hospitals were subjected to the Schick test for the handling of possible diphtheria epidemics. During the latter part of November and December the personnel of Base Hospital No. 31 were re-vaccinated with typhoid-paratyphoid vaccine. This was occasioned by the development of four cases of typhoid among the personnel of Base Hospital No. 31. At the same time stools of all persons handling food, cooks, kitchen helpers, etc., were examined for typhoid carriers. Rigid rules regarding drinking water, uncooked foods and milk were made. From time to time search was made for diphtheria and meningococcus carriers upon occasion of the finding of isolated cases of these diseases. No epidemic occurred.

Seven hundred and eighty-two operative procedures were carried out from June 1 to December, 1918, including under this head Schick tests, vaccinations, spinal punctures, administration of antisera, etc. A statistical summary showing work done from April 8, 1918, to February 1, 1919:

Examinations Made

Clinical Pathology

Blood: Erythrocyte counts	333
Leucocyte counts	983
Differential leucocyte counts	769
Hemoglobin estimations	253
Malaria examinations	101
Urine: Urinalyses, ordinary chemical	5173
Urinalyses, ordinary microscopic	5126
Feces: For parasites and ova, examination	297
For Entamebae, examination	163
Sputum: For tubercle bacilli, specimens	721
For other organisms	484
Gastric Contents: Examination of	38
Spinal Fluid: Smears for meningococci	70
Smears for other organisms	61
Cell counts	64
Globulin tests	61
Venereal Specimens: Smears for gonococi	112
Examinations for <i>T. pallidum</i>	61
Dark field examinations	101
Strained specimens	5

Anatomic Pathology

Operation specimens, microscopic examinations	25
Autopsies performed	254
Histopathologic examinations	125
Museum specimens prepared	31
Photographs of wounds, specimens, etc.	10

Official History, U. S. A. Base Hospital, Number Thirty-one

Bacteriology: (Specimens examined culturally)	
Blood	283
Urine	51
Feces: For dysentery	70
For typhoid and paratyphoid	97
Sputum: For pneumococci	89
For other organisms	394
Nasopharynx, specimens from:	
For B. diphtheriae	1671
For meningococci	64
Pus, exudates, etc. (exclusive of wounds):	
Aerobic cultivations	226
Wounds:	
Aerobic cultivations	1209
Milk: Total number of specimens of	3
Water: Total number of specimens of	59
Bacteriology examinations not otherwise listed	30
Serology	
Agglutination tests (with bacteria)	56
Bloods grouped (for transfusion)	137
Wassermann tests	645
Operative Procedures (By Laboratory Staff)	
Treatments with bacterial vaccines	318
Schick tests	525
	<hr/>
Grand total	21,619

THE DENTAL SERVICE

Capt. Walter H. McCreary, D. C., U. S. A.

During the nine months beginning April 1, 1918, the Dental Department of Base Hospital No. 31 treated more than 10,000 individual conditions. The total number of patients treated was 1,680, making this department one of the busiest of the specialty services attached to this hospital. Sitzings given totalled more than 2,500. During most of this period the work was carried on under the direction of Capt. McCreary and Capt. Forrest W. Ward, D. C., U. S. A. Capt. McCreary, who had been away on detached service, returned to his post early in May.

The department was called into consultation in a great many cases of suspected Vincent's angina, positive diagnosis being made in fifteen such cases. An almost uniform method of treatment was followed in these cases, consisting of a thorough prophylactic treatment of the mouth, employing ten per cent solution of copper sulphate applied every other day. In most of the cases the condition was cleared up in from seven to eight treatments. Salvarsan was used in two cases, one of which presented a positive Wassermann reaction. The results in both cases were entirely satisfactory, the acute condition clearing up immediately. It is noteworthy that in all cases under observation relief was obtained within twenty-four hours.

The most important surgical work done by the department was in connection with thirty-five jaw fractures, battle casualties, and twenty-seven impacted teeth, five of which were associated with abscess of jaw. Jaw fracture cases were usually from four to five days old before reaching this base and had had very little treatment en route from the scene of casualty. Practically all these cases were compound comminuted fractures, with loss of substance in many cases. There was only one casualty among this number, the majority of cases being evacuated for convalescence after jaw had been splinted and all infection removed. A number of jaw fractures were returned to duty as of Class "A" from this hospital.

The treatment of medical conditions under military circumstances proved in a surprisingly large number of cases that the basis of complaint originated in improperly cared for teeth. The Dental Department was called into consultation frequently and with the thorough co-operation of the associated services was able to pave the way for an early return to duty of a great many cases where dental conditions were not at first apparent.

The department's personnel included three surgical assistants, Pvt. 1c George N. Latimer, a student in the University of Pittsburgh, dental school;

Official History, U. S. A. Base Hospital, Number Thirty-one

Pvt. 1c Ralph W. Fieger and Pvt. 1c Lawrence M. Gale, a licensed dentist, attached for temporary duty. Until the needs of the hospital wards became too great a nurse was on duty also. In addition to work in the dental department the staff participated in other duties during periods of great emergency. Equipment originally consisted of the usual type of field chair and instrument cases. Modern type chairs were substituted. The instrument sets included the latest available in the American E. F. The laboratory was developed gradually and cared for all manner of work. Much of this equipment was devised there, available materials being utilized.

Statistical Summary

Persons treated	1,680
Sittings given	2,560
Defective fillings	68
Dental caries	4,004
Dento-alveolar abscess	941
Fractured jaws	35
Gingivitis, simple	72
Impacted teeth	27
Acute pulpitis	108
Pyorrhea Alveolaris	33
Salivary deposits	428
Amalgam fillings	1,879
Gold inlays	16
Gutta percha fillings	135
Oxyphosphate fillings	671
Oxyphosphate and amalgam	99
Root canals treated	145
Synthetic porcelain fillings	252
Gold crowns	10
Gold bridges	4
Crowns repaired	27
Bridges repaired	9
Plates	54
Plates repaired	11
Extractions, roots and teeth	1,008
Fractured teeth	10
Wounds of mouth	22
Vincent's angina	15
Devitalized pulp	70
Miscellaneous repairs, etc.	35

THE X-RAY LABORATORY

Capt. Orrin D. Hudnutt, M. C., U. S. A.

Our equipment began to arrive after we had been in Contrexeville a short time. We installed it in the Hotel Etablissement, where we had four rooms of good size, with space for expansion if needed. Most of our apparatus arrived in good condition, though a small portion was lost or broken, including two Coolidge tubes and our camera. The other base hospitals in this center generously gave us such aid as was needed until our requisitions had arrived. Our equipment, much of which was purchased in the United States from the original fund of more than \$50,000 subscribed by the residents of Youngstown, O., included many appliances perhaps not regularly provided for the work of base hospital units.

Such equipment included a $7\frac{1}{2}$ horse power rotary converter, eight K. W. interrupterless transformer, vertical fluoroscope, horizontal fluoroscope with table, late model Kelley-Koett tube stand, synchronizing motor with rectifying disc and with complete equipment for developing plates. The $7\frac{1}{2}$ H. P. rotary converter was mounted on a shelf in the stone wall about six feet from the floor. By this means we avoided all vibration and saved floor space, which was equally important. Our eight K. W. interrupterless transformer and the rotary converter delivered sufficient amperage and voltage for our work. We had almost no breakdown, the apparatus as set up and with some additions later on proving ample for our needs. We found a good carpenter to be of considerable help in making many appliances. Our laboratory was ready for work by the latter part of February, 1918.

On February 10th, 1918, Lieut. Davis Spangler was assigned to this department from Base Hospital No. 36 and Lieut. D. B. Phillips was released for other duties. Pvt. W. M. Kohlmorgan was made technician when the Base Hospital was organized in Youngstown. In February, Pvt. R. T. Schottenberg was added to our personnel. The personnel of medical officers and the two enlisted men (now non-commissioned officers) was practically unchanged except for a few weeks in April and May, when Privates 1c Charles Smith and Henry C. Rice were on duty at this hospital. We took our first plate March 1st, 1918, and from that day the laboratory was in continuous service.

The wounded were brought from the train to a dressing room and from here to the laboratory for fluoroscopic examinations and plates which were taken if necessary. For localizing we largely employed the Strohl method, which was both rapid and accurate. The depth was marked on the skin and

Official History, U. S. A. Base Hospital, Number Thirty-one

a report sent with the patient to the hospital, a copy being retained for our records. If a foreign body was present the patient was sent to the preparation ward to await operation. In cases of unusual urgency, as when gas could be detected in the wound, we sent an extra report direct to the surgeon in charge. Cases of fracture without foreign body were usually sent directly from the X-Ray to the fracture hospital. Cases negative for fracture and foreign bodies had their special wards. A bedside unit and French X-Ray table were set up in the operating room in the Casino. Here many foreign bodies were extracted, the surgeon and roentgenologist working together. This was especially valuable in chest, abdominal and thigh cases. The Hirtz apparatus was employed in limited number of head cases.

In co-operation with the officers of the medical service we did considerable fluoroscopic work in chest cases. After making our report, this was compared with the clinical findings. We not infrequently followed the case to the medical wards for further examination. So far as possible, postmortems were attended to check our reports with the more exact findings of the pathologist. Stereoscopic plates were always taken of chest and joint cases. Of these we had considerable number and variety. The consultations with the internists and orthopedists in regard to these cases were always of interest, and, we believe, enabled us to reach a more correct view of the case. In suspected fracture of the cranium, stereoscopic plates were taken in different diameters. Our gastro-intestinal cases were not numerous and presented no special interest. Besides the fracture cases we had quite a variety of bone lesions. A second bedside unit was used in the fracture wards for non-transportable cases.

During the month of October 1918, the largest number of cases of any one month, passed through our hands. Of these 430 had only fluoroscopic examination, 260 requiring plates in addition to fluoroscopy. The Argonne offensive was reflected in the volume of work demanded of the X-Ray laboratory. From September 29th to October 11th, 1918, 617 cases were examined fluoroscopically and 120 of these were plated. Our records were kept in triplicate. One report on the request to the X-Ray laboratory, one in book for reference, these two being kept in the laboratory, and the third was sent to the hospital from which the patient came. The receipt of this report was acknowledged by the sergeant in charge in a book which we kept for that purpose. In this way, if a report failed to reach the officer requesting it, the blame could be properly placed and misunderstandings were avoided. Through the kindness of the American Red Cross we were able, when necessary, to use the Gaiffe installation in the Bain de Thermal.

The writer was on detached service from April 10th to July 12th, 1918. During this time the work was ably directed by 1st Lt. Davis Spangler.

Official History, U. S. A. Base Hospital, Number Thirty-one

When we closed our work the personnel was as follows:

Capt. Orrin D. Hudnutt, M. C.
Capt. Davis Spangler, M. C.
Sergeant Wm. M. Kohlmorgan.
Corporal R. T. Schottenberg.

At all times the surgical and medical staffs of the hospital co-operated with us in the common endeavor to do all possible for those under our care. Friction was unknown, consultations frequent. The thanks of the officers in charge of the laboratory are due to the non-commissioned officers for their energy and loyalty, and to the members of the transportation department of whose careful handling of the sick and wounded we were daily witnesses.

We have appended a report of our work from March 1st, 1918, to January 10th, 1919.

CLASSIFICATION OF CASES

Plate Cases

Head: Fracture	19
Foreign body	40
Sinus Cases: Sinusitis	6
Negative	4
Mastoids: Mastoiditis	
Acute	7
Chronic	1
Negative	1
Negative head	83
	<hr/>
	161
 Jaw: Fracture	22
Foreign body	7
Osteoma	1
Osteomyelitis	1
Negative	10
	<hr/>
	41
 Shoulder: Fracture	37
Foreign body	6
Dislocation	1
Calcified bursa	1
Negative	19
	<hr/>
	64

Official History, U. S. A. Base Hospital, Number Thirty-one

Upper Extremity:	Fracture	151
	Foreign body	16
	Arthritis	2
	Exostosis	2
	Osteomyelitis	4
	Periostitis	4
	Negative	39
		<hr/>
		218
Chest:	Peribronchitis	140
	Fluid in chest	25
	Tuberculosis	5
	Suspected tuberculosis	9
	Unresolved pneumonia	3
	Thickened plurae	6
	Pneumothorax	1
	Foreign body	5
	Negative	69
		<hr/>
		263
Ribs:	Fracture	9
	Negative	1
		<hr/>
		10
Spine:	Fracture	5
	Foreign body	2
	Scoliosis	4
	Osteomyelitis	2
	Negative	27
		<hr/>
		40
Pelvis and Sacrum:	Foreign body	1
	Osteomyelitis	2
	Negative	19
		<hr/>
		22
Abdomen:	Gastro-intestinal	11
	Foreign body	1
		<hr/>
		12

Official History, U. S. A. Base Hospital, Number Thirty-one

Kidney and Ureter:	
Pyonephrosis	1
Calculus	1
Negative	26
	<hr/>
	28
 Lower Extremity:	
Fracture	163
Foreign body	26
Dislocation	1
Arthritis	5
Exostosis	3
Osteomyelitis	8
Periostitis	11
Negative	159
	<hr/>
	376
 Total Plate Cases	1235
Localization foreign body in eye, Sweet method	13
Dental cases	162
 Fluoroscopic Examinations	
Cases for foreign body	718
Foreign localized bodies	444
Cases negative for foreign body	368
Gastro-intestinal	19
Chest	193
Miscellaneous	8
Total cases examined	938
	<hr/>
Grand total	2348

THE REGISTRAR

Lt. Frederick H. Button, S. C., U. S. A.

The evolution of the officer personnel of Base Hospital No. 31 caused many changes to be made in the office of the registrar. From the date of opening of the office on February 10th, 1918, to the closing of the hospital, approximately one year later, five officers held the office of registrar and as such were in charge of the admission, evacuation and recording of all patients handled by this hospital.

Lt. Everett R. Thomas, M. C., was appointed registrar by the commanding officer and continued in that capacity until he was assigned to duty with the 26th Division on April 28, 1918. Upon his departure for active duty at the front Capt. Frederick J. Bierkamp, M. C., assumed charge of the office, remaining for but a short period before being transferred to another hospital for specialty service. Major John L. Washburn succeeded as registrar, functioning during the period of greatest activity immediately following the Chateau-Thierry drive when the capacity of the hospital was tried for the first time. When he became commanding officer of the hospital, Lt. Davis Spangler, already associated with the X-Ray department and in charge of Ward "X", took up the work of admitting officer.

During all this period the inner workings of the department were in charge of Sgt. F. H. Button, who became registrar when he was commissioned in the Sanitary Corps, November 8th, 1918. The personnel of the registrar's office during most of the period of action included: Sgt. Lloyd Miller, Corp. William J. Dee, Pvts. 1c J. Franklin Morris, Eldon D. Williams and W. Stanley Day, and Pvt. Eugene Hobbs. Up to June 15th, 1918, when the entire "paper work" of the medical department was revised, the paper work of this hospital was carried on in full, through the old-fashioned style. With the adoption of the Field Medical card and the new system of rendering sick and wounded reports the registration work was greatly facilitated.

To insure accuracy form "55a" was filled out at the bedside by a representative of the registrar's office as soon after the arrival of the patient as was practicable. In this way correct information as to the general nature of the condition for which the patient was admitted, his full name, rank, organization and other routine data, including emergency address, was procured early. This information returned to the registrar's office was placed on file among the "active cases" or those under treatment, on Form "52," the Register Index Card. A cross index showed patients in the

Official History, U. S. A. Base Hospital, Number Thirty-one

hospital, according to organization, which proved a great aid in locating men reported missing in action, and for group evacuation. The blotter book formed a permanent record of all patients admitted, their source, entry diagnosis, changed diagnosis, disposition and date. Transfer and duty files carried the Register Index Cards of the two classes of cases thus disposed of.

Upon evacuation to other hospitals for further treatment Field Medical cards, "55a" and all other clinical records were sent along with the patients. It was not uncommon that X-Ray plates or films were included with such information. Upon the discharge of cases, the Field Medical card with a complete history was forwarded to the Chief Surgeon's office as per requirements. Other clinical data remained as part of the hospital records. Special statistics were kept for Allied patients, of which there were several hundred during the early history of the hospital. The required information on German Prisoners of War was procured from the more than 150 such patients admitted. A complete statistical review of patients handled by Base Hospital No. 31 appears in the chronological diary under date of the official closing of the hospital.

Aside from the paper work entailed, it was the duty of the Registrar to supervise the unloading of all ambulance and sanitary trains, the proper distribution and care of patients until medical officers assumed responsibility upon admission of patients to the hospital wards. In evacuation the registrar's office was in charge of entraining, if by sanitary train. When returning to duty soldiers were equipped under the direction of the same office.

One of the greatest problems to be solved in the handling of patients coming to and going from this hospital was the question of detraining and entraining. Like so many other French villages, Contrexeville had nothing more than a few hundred yards of railroad sidings, along which was usually any number of empty wine casks, lumber piles and stone heaps. It never was a simple matter to bring French and American sanitary trains onto these sidings in a manner which would permit of easy loading or unloading. Despite these difficulties and the fact that during the entire period of operation all but a very few convoys arrived at almost any hour of the night, the moving squads succeeded in getting the few available ambulances to points of more or less vantage. Stretcher carriers were always of sufficient number to carry litters from the train doors to the ambulances no matter how far away.

Frequently, when train crews were not particularly clever at their work, some of the more expert of our detraining squads were assigned to work in the cars, assuring the patients much more gentle handling and making for quicker transportation to the hospital wards or dressing rooms. The work of unloading trains was in charge of the admitting room forces, which included Sgt. 1c Claude H. Morrow, Sgts. Paul Velker and Hazen L. Becker

Official History, U. S. A. Base Hospital, Number Thirty-one

and Pvt. 1c Albert Fraser. This force was augmented according to the size of the train to be unloaded. During the period when ambulance trains direct from the front areas were arriving in Contrexeville daily a crew was maintained at the bath house both night and day to receive and properly direct such cases as might be received.

In the performance of the manifold duties of the office the personnel was frequently called upon to work hours without end. During rush periods it was not uncommon that one train arrive before the paper work of another had been cleared up. Also, evacuation frequently came at approximately the same time as a convoy of patients arrived, making it necessary to double and redouble efforts. During all of this there was a display of most unselfish devotion which made it possible to accomplish the seeming impossible.

THE DRUG ROOM

Capt. William H. Bunn, M. C., U. S. A.

Plans to have the pharmacy of Base Hospital No. 31 completely furnished as possible were made before the unit left Youngstown, when, with money furnished by the original hospital fund, considerable equipment and small stocks of some drugs were purchased. Included in that equipment were: Torsion balances, Troemer balance, pill tile, spatulas, powder papers, capsules and corks, some of which were difficult and others impossible to procure from government supplies in France. Among the drugs brought to France were some articles not included in the drug lists of the Manual Medical Department, such as fluid extract of cascara, sterile comphorated oil and many others which were available in limited quantities only.

When the pharmacy was established on January 29, 1918, three rooms in Hotel Harmand were reserved for its use. On the following day the supplies purchased in Youngstown were received, making it possible to fill the initial prescription the same afternoon. During the year which transpired more than 30,000 orders were filled. Approximately 7,500 signed prescriptions were compounded, each prescription carrying an average of four separate orders.

A circumstance which made more difficult the relations between the pharmacy and those it served was the necessity to conform with army regulations in the matter of writing prescriptions in terms of the metric system rather than the apothecary system with which all American physicians and nurses are acquainted. Although it would have been just as easy for the apothecaries to prepare prescriptions written according to the American system, it early became apparent that standardization would be necessary. It was a matter of some weeks before the entire staff became acquainted with the requirements in this regard. To facilitate the workings of the department all refilled prescriptions were sent to the pharmacy in the morning, giving the compounders an opportunity to profit by the possibility of having more than a single order for the same compound from the different wards.

New prescriptions were accepted at all hours of the day and a member of the staff was available for emergency work at all times. Quantities of standard compounded medications such as cough mixtures, diarrhoea mixtures, back lotion, tincture of green soap, tincture of iodine, gum salt solution and other commonly used preparations were made up frequently, and always were on hand. Many of these preparations were the "pet prescriptions" of the medical officers in their civilian practice. Others were the

Official History, U. S. A. Base Hospital, Number Thirty-one

creature of the pharmacists, who contributed formulae created in their private work in the United States.

Each ward in each hospital building was equipped with a drug chest which contained such drugs as might be necessary in the routine treatments, together with stock prescriptions. Each building had a locked cabinet containing narcotics for emergency purposes. These were maintained by the drug room on requisition from the building officer. In addition to the preparation of the prescriptions for hospital usage the department maintained a stock of standard drugs to be issued on proper requisition to such other military units as did not possess adequate pharmacy facilities. American forestry outfits and nearby British units were supplied frequently. Indigent French, with no other source of supply, were regular customers and, their worthiness established, were enabled to get the medicines prescribed for them by the American medical officers under whose care they had come.

The distribution of drugs was not the sole business of the department, however. Before the magnitude of this work became apparent in the earliest days of the hospital the drug room was charged with the handling of all medical supplies brought from the United States. Carloads of bed linen, pajamas, slippers, bath robes, towels, and minor surgical instruments, were invoiced to the department and distributed to the eight buildings of the institution. The detail was transferred when a medical supply officer was designated.

One of the most important functions of the department was the preparation of Carrel-Dakins solution, more than 5,000 gallons of which were used during the history of the hospital. When the first convoy of surgical patients received in May, Sgt. 1c Fred Lewis prepared the first Dakins. At no time from that date to the closing of the hospital were surgical wards allowed to be without an ample supply of this solution. A double check on the titration of the solution was made possible through arrangement with the Central Laboratory. Dichloramine-T, used in goodly quantities by the surgical service, was prepared by the pharmacy. During the months following the Argonne it was necessary to use chlorcosane as a substitute for chlorinated eucalyptol and chlorinated paraffin. The results proved entirely satisfactory.

When the unit left Youngstown it was blessed with more pharmacists than were necessary to successfully carry on the work of the department. Sgt. 1c Frank H. McWhirter was in charge until he was sent to a training school in conjunction with the medical supply department, from which he was transferred on December 31, 1918, to the Medical Supply Depot at Miramas. The signing of the armistice had deprived him of the opportunity of being commissioned. He was succeeded by Sgt. 1c Fred C. Lewis, who had been assistant since the organization of the pharmacy. Pvt. 1c Daniel Griffin became assistant on the departure of Sgt. McWhirter. Other members of the enlisted personnel assisted at various times.

GENITO-URINARY STATISTICS

Capt. David B. Phillips, M. C., U. S. A.

The "G. U." department of Base Hospital No. 31 was opened with the arrival of the first convoy of cases on May 12, 1918, and continued to handle all venereal diseases and special genito-urinary cases. A dermatological ward was added in the last few months of the hospital's activity. One wing of building No. 7 (Martin-Felix) was reserved for the use of this department, the capacity being thirty-seven beds. At various times the work was in charge of Major H. A. MacGruer, Capt. A. E. Brant and Capt. Phillips, together with Surgical Assistants George King, George A. Scobell, Paul Chaffee and Corp. Robert A. Walton. In addition to its regular genito-urinary work the department maintained a prophylaxis station for the post.

Of the more than 100 venereal cases treated, statistics show that approximately fifty per cent of all conditions existed prior to entry into the service. Of this number a large percentage, particularly epididymitis due to old gonorrhoea, were fanned into activity by the active military life and exposure. Potassium permanganate irrigations, together with injections of the more mild silver preparations as argyrol, protargol and their equivalents were adhered to in treatment of gonorrhoea. As a result of the methods used it was possible to return seventeen cases of acute gonorrhoea to duty as Class "A" in an average of 36.3 days. Five similar cases were evacuated after an average of 10.8 days treatment. Several cases of syphilis of the central nervous system cared for here in collaboration with the center neurologist, after diagnosis and a limited amount of treatment, were sent to a base section hospital for evacuation to the United States.

In the treatment of luetics the early diagnosis of local lesions was much simplified by use of the dark field microscope. A large percentage of secondary lues treated gave a history of having had a lesion which had been diagnosed chancroidal or innocent, clinically. Observation at this hospital taught us that more careful and diligent search for the exact causation should have been made early in the disease, not only for the good of the patient but for the elimination of uncertainty in the mind of the future clinician and the assurance of the continued proper treatment.

The regular U. S. Army anti-syphilitic treatment of arsenic and mercury as outlined by Lt. Col. Hugh Young was followed. The only variation being that we used slightly larger dosage of either arsenic or mercury particularly in cases of primary syphilis. Rarely was there a patient that had nausea or vomiting or a severe reaction following the intervenous adminis-

Official History, U. S. A. Base Hospital, Number Thirty-one

trations of Nov-arseno-benzol, even in the larger doses. Occasionally, the intervenous administration of the cyanide of mercury was followed in about six to eight hours by severe abdominal cramps with bloody stools. A smaller dose for a day or two or a rest of one or two days remedied this difficulty and the patient was then able to take the treatment without further halt.

The prophylaxis station gave 141 treatments with only one failure. Prophylaxis had been taken ten hours after contact in this instance. A statistical table showing the disposition and average stay of some of the conditions treated by the department follows:

Diagnosis	Duty	Average Stay	Transferred	Average Stay
Gonorrhoea, acute	17	36.3	5	10.8
Gonorrhoea, chronic	32	23.6	5	29.8
Syphilis, primary	22	30.8	10	18.8
Syphilis, secondary	12	42.3	9	23.3
Syphilis, tertiary	5	32.6	5	22.4
Epididymitis	11	47.7	1	16
Chancroidal infection	11	43.35	8	26
Prostatitis	4	44.7	1	34
Bubo, chancroidal	4	59.5	3	29.3
Eneuresis	2	44	1	12
Orchitis	4	22		
Hydrocele	5	21.8		

HISTORY OF WARD "X"

Capt. Davis Spangler, M. C., U. S. A.

The ultimate aim of the base hospital is the return of the sick or wounded soldier to his organization in fit condition to withstand the hardships of combat duty, and to do this in the least possible time. Any factor which will lessen the number of days spent in the hospital by any group of cases, without lessening their effectiveness, is of great value. This is true in both civil and military life but it was particularly vital during 1918 due to the great need of men on the firing line. During the summer and fall of 1918 there was almost always a potential, if not actual, scarcity of hospital beds, and this made it imperative that patients be sent out as rapidly as possible, especially in the front line of base hospitals of which Base Hospital No. 31 was one.

Early in our experience with men from the combat organizations, we realized that valuable time was being lost and valuable beds occupied by those cases who had received all the medical and surgical attention required but who were not strong enough to be returned to their organizations. There were at this time no convalescent camps established, or if established none was available for the receipt of this type of case from Base Hospital No. 31. The cases were being held in hospital beds and were taking a nice rest cure, which, although fine for the nerves, is rather poor as a muscle builder. These patients, for they still occupied that status, were, in a way, quite a liability. They were being used as hospital orderlies and sporadically for outside details. They were thus, especially those confined to orderly duty, exposed to any infection which might be present and, lacking the training of the regular corps man, did not understand or take the proper precaution against infection.

But more dangerous was the psychical infection to which they were subjected from listening to the complaints of their "buddies"—the result of this infection usually appearing about the time of or shortly after their return to the line, if the individuals were in the least susceptible. In order to remove them from this atmosphere of being a "patient", and to shorten their hospital days, it was decided to establish a convalescent ward. The purposes of such a ward were manifold. Primarily its object was to get these men, for whom all had been done which was necessary both in the medical and surgical standpoints, out of the hospital atmosphere. By furnishing suitable exercise and work for these men it was hoped that they would be better fit to stand the strain of combat duty.

Official History, U. S. A. Base Hospital, Number Thirty-one

Ward "X", as this convalescent ward was to be called, was also to receive and test out those peculiar border line cases who were apparently well but who developed various cardiac and respiratory symptoms upon exertion or under unusual strains—that class where the medical officer could not be sure that they were ready for duty but still could not conscientiously hold them as hospital cases. For the surgical cases, it was to serve in the same way. Here were to be taken the men whose wounds were healed but who had some muscles bound down by scar tissue; a post-operative joint case which required some special exercise or some peculiar form of work; the post-operative abdominal cases who, although well enough to do very light duty, were in danger of hernia formation if too heavy work was attempted.

Every type and kind of case was to be admitted, all too numerous for mention here, and each type to be studied with reference to its various needs with the intention that all cases or groups of cases should receive the kind of exercise and work to which they were adapted or in which they were interested. It seemed that all this would never get beyond the theoretical stage as there was no place available for such a ward without taking over part of the already too limited bed space in our regular hospital buildings.

In the early part of July it was discovered that there was a part of one of the buildings which, due to some misunderstanding with the French authorities, had not been utilized as hospital space. This was immediately surveyed and the necessary beds and cots put in. By July 12, Ward "X" had ceased to be a theory and was a definite part of Base Hospital No. 31 with the capacity of seventy-four beds.

The personnel consisted of 1st Lieut. Davis Spangler, Sgt. 1st Class Francis M. Kerwin and Sgt. Walter Church. It was now necessary for some workable division of patients into classes to be made. These men were potentially the hardest sort of soldiers to handle. They felt well and were more or less impatient at being held in hospital. The discipline was more or less relaxed as compared with that in the line organizations. They felt that, because of the wounds received and dangers faced, they were due a nice and long restful convalescence. They were full of energy which had to be directed along some useful line or they would be tearing up the town. It was in fact quite a ticklish situation, but one which eventually worked out extremely well.

It was decided to divide the men into various groups depending upon the degree of recovery from and the character of the cause of their admission to the hospital. Four groups were formed, classes A, B, C and D. The men placed in class "D" were to do only two hours light duty daily; those in class "C" to do one-half day or four hours light duty; those in class "B" a full day of light duty or one-half day of heavy duty; those in class "A" a full day of heavy duty. It was intended that the officer in charge of Ward "X" make this classification, but it was soon found much

Official History, U. S. A. Base Hospital, Number Thirty-one

better to have the classifying done by the ward surgeon in charge of the cases. As classes "C" and "D" were so nearly the same, it was found that they could be merged into one class quite readily and class "D" was abandoned within a month after the opening of Ward "X".

Next came the problem of classification of the work for these men. In running an institution the size of Base Hospital No. 31 there were innumerable details inside and outside the buildings. It was decided to use as few as possible of the Ward "X" men for inside duty, leaving this to better trained corps men, but to use Ward "X" men on as many outside details as possible. For this class of work the following occupations were available: work on the Red Cross farm, trucking details, sanitary details, carpenter and plumbing work, distribution of the gifts of the Red Cross, help in running the Red Cross hut, K. P. duty, transportation of stretcher patients, police work in and around the buildings, orderly duty at headquarters, etc. With this range of work to be done and with its various divisions there was little difficulty in finding just the character of work suited to the individual case or group of cases. There was an infinite variety and the men were changed from one detail to another whenever they outgrew or became stale on any particular kind of duty.

Each morning from fifteen to thirty minutes were given to calisthenics, no one particular routine of exercise being followed, as it was found that variations served to maintain interest. Sometimes the men were given a short run or some game instead of the setting up exercise. No one was excused from these exercises, absence without good reasons being punished by confinement to quarters. Three times a week hikes were made which will be discussed later. Sick call held each morning was most simple. Only a few minor remedies were kept and only very minor dressings done. If the patient became really sick he was returned immediately to one of the hospitals. Attendance at sick call was not encouraged. Everything possible was done to take away the hospital atmosphere and to make these men realize that they were well, only not quite strong enough to rejoin their organization.

When new men came into Ward "X" the object of the institution was explained to them, the rules were read and they were told that they would be returned to their organizations as soon as they were fit. This promise was carefully kept and had a great deal to do with maintaining the morale of the men. Upon admission a card was made out showing name, rank, organization, date of entry, building from which the man came, cause of admission to hospital and the class into which he was placed. Below this was a space to show the amount of time spent each day, the character of work done, the temperature, pulse and respiration upon return from this work. This was used as a gauge to the class in which the man belonged and he was stepped up as rapidly as possible.

Official History, U. S. A. Base Hospital, Number Thirty-one

The non-commissioned officers sent to Ward "X" were placed in charge of details and were given careful instructions as to how much work each man was to do. They were instructed to report on the efficiency of the men and how they reacted to the work done. The men for all details were supplied from Ward "X" excepting those to be used in the hospital wards themselves. An approximation of the number of men needed and the character of work to be done next day was handed in to the sergeant in charge of Ward "X" each evening. After ascertaining the results of that day's work, the men were assigned to these various details at roll call next morning. This method was found to be very satisfactory and facilitated the working of the hospital greatly.

Three times a week all class "A" men and those on the border line between classes "A" and "B" were sent out for a hike, for from one to two hours, usually conducted by a convalescent commissioned officer. The men were marched for intervals of twenty to thirty minutes, with five to ten minutes rest, either at attention or route step. The last lap of at least thirty minutes was done at attention and 120 steps to the minute. Immediately upon return from the hike, all the men were examined by the directors of the medical and surgical services. Those men who had been on two or more hikes and showed no marked acceleration of pulse or respiration were reported as ready for return to duty and were usually sent to the replacement camp next day. Any one showing any bad effects from this exercise was held and given more hiking. It was remarkable to see the improvement in the men at each subsequent hike.

As the number of convalescents in hospital increased, with increasing demands from the wards that more cases be taken, it became necessary to enlarge Ward "X". The first increase was to 88 beds, then to 120, next to 140, then to 173, again to 253 and finally to 288 cots or beds. At this time we had two tents and four spare rooms or parts of buildings in use. Every effort, however, was made to keep Ward "X" men separated from men actually sick or wounded, and, although scattered, the various parts of Ward "X" were nowhere in direct contact or communication with hospital wards. With this decentralization of the men it was increasingly difficult to maintain discipline, but it is of interest to note that during the whole of its existence there was only one summary court case in Ward "X".

The variety of medical and surgical conditions sending the men to the Base Hospital was mirrored in the variety of problems confronted in handling the men in Ward "X". Quite naturally the same exercises and work would not be suitable for a G.S.W. of the arm and for an effort syndrome case; a simple bronchitis would require a different regime from a gas case, etc. One of the most interesting and important class of cases which we had were the D.A.H. (disordered action of the heart) or effort syndrome cases. These cases were most trying. The men would be apparently well and fit and, so long as they took things easy, there was no

Official History, U. S. A. Base Hospital, Number Thirty-one

reason to doubt them, but on exertion some would develop quite an alarming tachycardia and would gasp for breath. On resting this would disappear only to reappear upon a repetition of the exertion; each subsequent over-exertion seemed to weaken them more and more. We worked out a regime for these cases and hastened their return to normal.

They were placed in class "C" or "B" upon their entrance and were given the very lightest kind of work, but always in the open air. They were required to take the morning exercises, but were instructed to quit whenever they felt any cardiac distress. After a few days of this they were put in class "B", provided they had progressed normally. Their condition was explained to them and their co-operation obtained. They were usually in class "B" for about a week, gradually increasing the amount of work, but being careful not to over tire. They were then sent on the hike and usually returned fairly fagged. Class "A" was their next step, being placed on the farm or some detail which gave them abundant outdoor work but not involving sudden strains. Within a few days, seldom more than ten, they had passed the examination after the hike and were on their way to the combat organization.

Another interesting class was the convalescent gassed patients, many of whom had the effort syndrome but the majority of whom were, especially the mustard gas cases, subject to a peculiar type of pain. They would report at sick call with a history of being unable to sleep because of a pain variously described as dull, short, lancillating, migratory, etc., somewhere in the neighborhood of the heart. It would be localized in various places from the left mid-axillary line to the right nipple line and from the clavicle to the level of the umbilicus but always radiating from the heart. No cause for this pain was ever found on physical examination, but the men were too positive in their statements for one to doubt that it was a real thing to them. Numerous remedies were tried but the only real results achieved were from generous counter-irritation with iodine applied over the whole pro-cardiac area, accompanied by the assurance that this pain was only a temporary affair which would soon disappear. We could never find that this pain in any way interfered with the man's work, but it was certainly a constant cause of complaint and quite trying to the sick call officer until the above treatment was instituted.

Post-operative cases offered another fruitful source of worry. The men with GSW of the hand, arm or shoulder with the resulting interference to the functioning of the various muscles formed this class. All cases of permanent disability were sent home, but those whose function would return when the scar tissue was stretched and the muscles redeveloped were sent to Ward "X". These cases were soon well so far as their general condition was concerned but had to be held in hospital because of the interference in the functioning of this one part. The problem was finally solved by procuring a box of carpenter's tools and putting these men to work making

Official History, U. S. A. Base Hospital, Number Thirty-one

stools, bedside tables, wall cabinets and other simple affairs. Concentrating on this one type of work these cases were in condition to return to duty at least two weeks earlier than had they remained on routine details and at least a month sooner than had they remained in hospital wards.

The one type of case in which Ward "X" was practically a complete failure was in the flat-foot group. Wearing of the orthopedic strap helped some but we were never able to really benefit their condition.

Probably the most marvelous cure worked by the Ward "X" treatment was on the group of some fourteen hysterics affected with the so called "shell shock". These men came into Ward "X" just at a time when the quartermaster had several cars of coal to be unloaded. Classed as "A" these men were put under a "hard" N. C. O. and sent to unload this coal. Within less than a week all were on their way to rejoin their organizations—cured and carrying with them the impression that "shell shock" was viewed, in the vast majority of cases, as an evidence of a "yellow streak".

From July 12th to December 3d, 1424 patients passed through Ward "X", 922 coming from the medical service and 502 from the surgical side. The average number of days for all cases was 7.37 days. The following statistics give a summary of the disposition of cases:

Medical Cases:		Surgical Cases	
Mustard Gas	338	G. S. W.	358
Phosgene Gas	59	Sprains, dislocations	37
Influenza	228	Simple fractures	6
Pneumonia	46	Abdominal operations	20
Bronchitis	41	Flat feet	11
Neurasthenia (hysteria)	21	Miscellaneous	70
Rheumatism	17		
Miscellaneous	172		
Totals			502

Disposition

Class	Number of Cases	Average Stay in Ward "X"
Returned to duty	1140	7.44
Sent to Convalescent camp	24	2.92
Evacuated to other hospitals	41	9.44
Returned to hospital wards	219	7.1
Totals	1424	7.37

On December 3d, due to our inability to return cases to duty, there were more than 250 men in Ward "X", absolutely cured. On this date they were formed into a casual company and Ward "X" was discontinued, the bed space being required for the casualls. Ward "X" personnel continued in charge of this newly created department.

Official History, U. S. A. Base Hospital, Number Thirty-one

Ward "X" was founded as an experiment—as a thing of unknown or doubtful value to the organization but, through the earnest, conscientious and faithful service of the non-commissioned officers, especially Sgt. Kerwin, and the hearty co-operation and encouragement of the officers of both medical and surgical services it became an important part of Base Hospital No. 31. Conceived as a beautiful theory, it ultimately became a most valuable institution. In conclusion: I wish to summarize the benefits of Ward "X", as they seem to me, to the Army, to the soldier-patient and to Base Hospital No. 31. These naturally overlap in many cases and all are of either direct or indirect benefit to the Army. The direct benefits were:

To the Army:

First: A decrease in the number of hospital days.

Second: The return of men in more fit condition to withstand any strain or responsibility placed upon them.

Third: The quicker return of men to their organizations, by the elimination of sending them through convalescent camps.

Fourth: Better morale, the men realizing they were receiving careful, conscientious, individual study of their condition.

To the Soldier-Patient:

First: Better physical condition for their combat duty.

Second: Better morale.

Third: Removal from danger of physical and psychical infection of the hospital proper.

Fourth: Removal from the sick room atmosphere and attitude.

Fifth: Direction of thoughts and energies along useful and practical lines, that his surplus energy be not expended in trouble making.

Sixth: More intelligent care, due to a more complete understanding of the peculiarities of each case, because each case is carried practically from beginning to conclusion in the same hospital.

To the Hospital:

First: Release of bed space in the hospital proper.

Second: Release of the ward surgeon from the care and discipline of convalescents, permitting him to devote his whole time and energies to those requiring his skilled attention.

Third: Aid in maintaining a better discipline of convalescents than was possible in the hospital proper, where these convalescents were necessarily of secondary importance.

Fourth: Better sanitary conditions in and around buildings, as there were more men available for this work under N. C. O.'s especially trained in sanitary matters.

Fifth: Release of the corps men from this outside duty for that work for which they had received especial training, and, hence, a more intelligent care of the patients.

THE ARMY NURSE

More than 8,000 patients passed through Base Hospital No. 31 and if a vote could be taken it is doubtful if there would be found any of this number who would not be glad to pay glowing tribute to the efficiency and unselfish devotion of the Nursing Corps, which, despite its inadequate size, proved remarkably efficient in its work.

At no time during periods of emergency operation was there a large enough number of nurses available, although the unit brought to France the number then allotted to base hospitals and later was augmented by the addition of an auxiliary unit of twenty-one members. Unlike the majority of American Base Hospitals, Base Hospital No. 31 operated in what had been French hotels, of more or less marked antiquity. It would seem on first supposition that this condition was ideal. On the contrary, work was multiplied because it was impossible for a single nurse to have under her immediate supervision nearly as many patients as could be handled in the barracks or marquis type ward. Despite the handicaps encountered the nursing staff was never found wanting. The detachment was organized in Youngstown, under the direction of Miss Frances Kehoe, then assistant supervisor of nurses at the Youngstown City Hospital, and Miss Martha Anderson, supervisor of the hospital of the Youngstown Sheet and Tube Company.

Included in the roster were a number of nurses who had had considerable experience in institutional and executive work. When Hospital Unit "G" joined, twenty-one nurses who had been assembled under the direction of Miss Augusta Morse brought to the hospital much valuable ability, a large part of the administrative department of a hospital having enlisted with that organization. The complete roster, on March 23d, 1918, when the base was officially opened follows: Miss Frances Kehoe, Chief; Miss Martha Anderson, Assistant; Miss Augusta Morse, Assistant; Miss Winifred Campbell, Night Supervisor. Nurses, Catherine B. Bonner, Hazel F. Bryan, Ella B. Brown, Winifred R. Bullock, Edith M. Caldwell, Catherine E. Cassidy, Delia Conricote, Florence A. Dark, Edith M. Dewitte, Olive M. Dunn, Harriet J. Eckels, Esther N. Erickson, Marguerite Findlay, Lelia M. Gettles, Ella Mae Gilchrist, Minnie H. Gray, Grace E. Harris, Edith L. Hadsall, Margaret E. Herr, Sarah J. Hunter, Lena M. Hurd, Hattie M. Hyland, Lyda Jeanne Hyland, Alma A. Jones, Anna O. Jones, Margaret K. Keegan, Helen G. Larkworthy, Blanche A. Lewis, Mary F. McClenahan, Grace M. Merrill, Minna T. Meyer, Dorothy B. Millman, Mary D. Mitchell,

Official History, U. S. A. Base Hospital, Number Thirty-one

Esile G. Mohler, Mary M. Murphy, Gladys E. Nonemaker, Nell F. Notestine, Ellen F. O'Brien, Leona R. Osborne, Lorene M. Phillips, Olive N. Reed, Eleanor Reid, Anna M. Roberts, Agnes A. Sharkey, Mary L. Shea, Grace R. Singer, Rachel Smith, Martha R. Stirling, Margaret C. Stoffel, Viva I. Thompson, Adelaide M. Vanderholt, Anna Vaughan, Clara A. Wack, Marie Watson, Ora M. Welshons, Gladys H. Wiesen, Pearl M. Worley, Lily Anderon, Mary M. Powers, Bertha L. Witt, Alys M. Stryker, Helena Riordan, Anna B. Chaffee, Louisa R. Cramp, Elizabeth J. Dewhurst, Margaret M. Joyce, Kathryn M. Kull, Nellie J. Murphy, Laura A. Reynolds, H. Victoria Robinson, Cassie A. White, Helen I. White, Mary P. Wight, Edna M. Bousfield, Bertha M. Boyd, Catherine A. Corcoran, L. Grace Cotton, Ellen F. Cramp, Anna B. Davis, Lillian A. Johnson, Frances E. King and Margaret MacDill.

The following nurses were originally in charge of buildings: Casino—Miss Mohler; Souveraine—Miss Lewis; Harmand—Miss Hadsall; Continental—Miss Worley; Martin-Aine—Miss Anna O. Jones; Thierry—Miss Harris; Martin-Felix—Miss Erickson; Etablissement—Miss Hattie Hyland; Operating Room—Miss Mitchell. Subsequent changes placed the following nurses in charge of buildings: Miss Bullock, Miss Louisa Cramp, Miss Bonner, Miss Sharkey, Miss Cotton, Miss Findlay, Miss Witt, Miss Mary Murphy, Miss Stirling, Miss Bousfield, Miss Thompson, Miss King, Miss Dunn and Miss Roberts.

Miss Frances Kehoe was relieved as chief nurse by Miss Sue Austin Wilson, on November 2, 1918. Miss Wilson came to Base Hospital No. 31 after having assisted as chief nurse in the organization of the nurse corps for Base Hospitals Nos. 81 and 60, at Bazoille. Having been in Army hospital service in the United States, Miss Wilson introduced into the executive work of Base Hospital No. 31 many regular army principles. She was materially assisted by Miss Martha Anderson, who as assistant chief nurse, had been constantly in touch with all the problems of the institution from the day of its inception.

It was only a short time after the hospital was organized that the first call for nurses for duty elsewhere was received, six being ordered to Base Hospital No. 9 at Chateauroux for temporary duty, as follows: Miss Dunn, Miss Bonner, Miss Gilchrist, Miss Harris, Miss Wight and Miss O'Brien. When these women returned to their base they brought with them the commendations of the chief nurse under whom they had been working. Eight more nurses were sent to Evacuation Hospital No. 2 at Bacarrat for emergency duty, returning after a week of intense activity in caring for gas and liquid fire cases. The members of this group were: Miss Mary Murphy, Miss Caldwell, Miss Bousfield, Mrs. Hurd, Miss Meyer, Miss Osborne, Miss Vanderholt, Mrs. Welshons and Miss Brown. When, upon his arrival at Evacuation Hospital No. 4, Lt. Col. Edward S. Van Duyn saw the need for more nurses for the emergency work to be done there, he

Official History, U. S. A. Base Hospital, Number Thirty-one

called for eight from Base Hospital No. 31, the following being selected: Miss Meyer, Miss Gettles, Miss Cassidy, Miss Cassie A. White, Miss Caldwell, Miss Singer, Miss Robinson and Miss Witt.

An evidence of the unselfish devotion displayed by the nurses of Base Hospital No. 31 is found in the citation which mentions several of this number for exceptional bravery under shell fire when Evacuation Hospital No. 4 was shelled on November 2, 1918, Miss Cassie A. White, who had been made chief nurse, Miss Meyer and Miss Robinson being mentioned for the part they had played. Miss Witt was on night duty and so had no immediate part in the activity although she was exposed to the dangers. Others of the group had been detached prior to the date of the bombardment. Some continued with Evacuation Hospital No. 4, going to Germany for a brief stay.

When, as Base Hospital No. 31 was about to close, there came a call for volunteers for continued service with the American forces, sixteen nurses responded and were sent to Germany as part of the Army of Occupation. The group comprised: Miss Boyd, Miss Corcoran, Miss Cotton, Miss Ellen F. Cramp, Miss Davis, Miss Johnson, Miss King, Miss Morse, Miss Riordan, Miss MacDill, Miss Lily Anderson, Miss Herr, Miss Alma Jones, Miss Watson, Miss Notestine and Miss Bousfield. They were lost to the organization through transfer. Base Hospital No. 90, having relieved Base Hospital No. 15 at Chaumont, issued a call for nurses to assist in the care of the more than 2,000 cases taken over. The detachment of twelve temporarily assigned included Miss Merrill, Mrs. Hurd, Miss Joyce, Miss Conricote, Miss Reynolds, Miss Wight, Miss Helen I. White, Miss Dewhurst, Miss Cassidy, Miss Hadsall, Miss Findlay and Miss Louisa Cramp. When it appeared that Base Hospital No. 31 was to start back to the States, these nurses were recalled to their base, although many of them were reluctant to leave the pressing work in which they had been engaged.

Full credit can never be given the young women who served in the front areas as members of surgical teams. Their work under most trying circumstances was the subject of the highest commendation of army authorities, general orders frequently mentioning the devotion and bravery of the nurses attached to the surgical and other teams in evacuation hospital work. Among the nurses who saw duty of this nature were Miss Mitchell, Miss Wack, Miss Vanderholt, Miss Sharkey, Miss Corcoran, Miss MacDill, Miss Cotton, Miss Caldwell and Miss Morse.

Although to the casual observer it might appear that the women who worked under the strain of front line activity did the truly noble work among the American soldiers, too much credit can never be given the nurses who by the unselfish devotion and untiring efforts in the wards of the base hospital accomplished wonders in their treatment of the ill and wounded. Beginning with the great handicap of having to work in old hotel buildings with all their little nooks and crannies that seemed handy at first but later

Official History, U. S. A. Base Hospital, Number Thirty-one

became only dirt traps, the young women had many obstacles to overcome. Their steps were multiplied by the necessity to climb up and down stairs, and in and out of rooms to accomplish only a fraction as much as might have been accomplished in the barrack type of hospital. In many respects Base Hospital No. 31 was better equipped than were many of the regular army bases, because the fund subscribed in Youngstown had furnished much desirable equipment not available through army sources. The ingenuity of the personnel, however, provided many bits of equipment of extreme utility though of homely appearance. Candy cans made excellent containers for cotton sponges; bacon tins, properly lined, were the ideal things for sterile dressings.

Every effort was made to counteract the effects of hard work by furnishing comfortable quarters, good food and congenial entertainment. Miss Louise Wick, civilian employe, accomplished wonders in her effort to provide for the needs of the young women. Although leaves of absence were impossible during the periods of greatest emergency, every opportunity was taken after the signing of the armistice to give the nurses the much needed vacations at the various leave centers.

The greatest contribution of the nurses to the success of Base Hospital No. 31 was their personal devotion to their work. Although much credit belongs to the executive heads of the buildings, the greater share of the glory should go to the young women who by their unselfish devotion and loyalty to their sacred charge gave of their very best to the care of the sick and wounded soldiers, American, Allied and enemy. Because during the periods of greatest activity illness and detached service reduced the effective forces almost 40 per cent, it was necessary that the nurses give more time to active duty than should have been necessary. That they did this with a genuine willingness is evidenced in the fact that even during their few hours off duty many continued with their work, some going to wards more active than their own to relieve. Nurses on day duty remained at their posts until forced to retire, completely fatigued, late at night. Civilian employes, Miss Wick and Miss Frances Boyd, donned the nurse's garb and did yeoman duty in the wards, in addition to their own work, which was increased in the rush of things.

Proficiency of the nurses in surgical work proved of greatest assistance during the periods of heavy surgery when all the officer personnel was needed for the continued action in the operating room. Frequently it was impossible to have enough officers to do dressings, nurses doing a large share of the routine. In the surgery the nurses replaced medical officers as assistants to the surgeons and were immensely successful as anesthetists. In the medical wards, particularly those devoted to pneumonia cases, and in which the secret of success was lodged in the problem of proper nursing, the very finest work was done. Infectious and contagious diseases were

Official History, U. S. A. Base Hospital, Number Thirty-one

always properly attended because there were enough unselfish young women always eager to do more than their share to provide for the comfort of "their boys".

But all this was not accomplished at a cheap price. There were those who worked until illness forced them to give up; two had to be evacuated to the United States. At the very top of the wind-swept hill which overlooks the valley of Contrexeville a simple marker designates the final resting place of one beloved member of the nurse corps, Miss Dorothy Millman, who gave her life in the fulfillment of the duty sacred to her profession.

IN LINE OF DUTY

"It is with the deepest gratification that the Commander-in-Chief directs me to express to you and to the nurses listed below, his great pride in their heroic conduct on November 2, 1918, when Evacuation Hospital No. 4 was shelled by the enemy artillery."

The "nurses listed below" included Miss Cassie A. White, Chief Nurse; Miss Henrietta Victoria Robinson and Miss Minna T. Meyer, all of Base Hopital No. 31, but then on detached service with Evacuation No. 4. After half an hour of verbal hide-and-seek with Miss White the details of the bombardment with the resulting display of heroism and devotion to duty on the part of the nurses then on duty, finally became known. With Miss White's reluctant but none the less graphic recital at hand one cannot but agree with the Commander-in-Chief when he says of their conduct:

"It is another page added to our Nation's history—a page brilliantly illuminated by the bravery of our American women in France."

On the morning of November 2, 1918, Evacuation Hospital No. 4 was stationed at Fromeryville, a wholly abandoned and badly wrecked village a few miles from Verdun. The hospital itself, consisting principally of tents, was located on the side of a hill above the village. By virtue of its position it was exposed to the enemy artillery fire even more than the village itself, which had been bombarded frequently during the four years of war. And artillery fire might well have been expected, for, on the slopes of a neighboring hill and overlooking ruined Fromeryville were giant Allied guns, then in use against the enemy. The headquarters and mess of the hospital were located in a ruined mill, several hundred yards down the hill from the hospital and the nurses were quartered in the ruins of the church.

Shortly after 11 o'clock on the morning of the second, the officers on duty in headquarters heard the shriek and subsequent explosion of a shell of large calibre. Shell fire had been almost continuous for many days and nights, but this explosion seemed to be in the immediate vicinity of the hospital. The officers and men left the building to see what damage had been done. It was well for them that they were out of the building. Three minutes later a second shell landed squarely in the center of the old heap of ruins. Two enlisted men asleep there were killed. Guided by accurate observation, the enemy shells, falling at three-minute intervals, crawled up the long slope toward the hospital with its tents full of wounded men.

Clearly, the wards would have to be emptied and the patients removed to a place of relative safety.

Immediately after the commencement of the bombardment Miss White had instructed the nurses in charge of each ward to be prepared for immediate evacuation. By the time the Commanding Officer of the hospital had climbed through the mud from headquarters all other hospital proceedings had been arrested, awaiting his orders. When the evacuation was ordered it was apparent at once that there were not enough officers and men available to carry all the stretchers. Miss White brought a quantity of stretchers from a triage tent, distributed them among the wards and then, through the heavy mud and rain, amidst the constant bursting of high explosive shells and the scattering of far-flying fragments, the transfer of the sick and wounded was carried on. All patients with sound legs walked to the crest of the hill and down on the safe side. The nurses and officers and men braved the shrapnel, and running, slipping and plowing through the mud knee-deep they carried the wounded to the top of the hill, placed them on the ground, and ran back for another load. An officer who had been on duty with the British and was familiar with shell fire, stationed himself in the center of operations, and whenever he sensed an approaching shell he cried "Duck", and when the fragments had all fallen he cried, "Go ahead."

Miss White and one of the men were carrying a patient up the hill, Miss White in the lead, when a shell exploded nearby. She "ducked" but then she stood up too soon. A fragment of shell-casing struck her rain-hat, knocking it off and throwing her to the ground.

"Oh my God, Miss White, you're hit!" her assistant shrieked.

"No I'm not either," she replied coolly enough, regaining her feet. "But catch hold of that stretcher and let's get out of here."

As evidence of the fact that she was not excited Miss White kept the shell fragment.

"It really was remarkable that none of the nurses were struck," Miss White said. "I guess it was simply luck. Certainly they were all exposed long enough. It was not a pleasant experience at all and yet, in a way, it was pretty to look at, pretty to watch the little groups scurrying up that long hill and running down."

No great situation of the kind is wholly without its laughable incidents. Miss Robinson, while evacuating her ward had to arrange the blankets for a patient. He became a little panicky, and when she bent down he leaned out of his bed, shoved her under the bed and held her there, saying:

"Now, you stay there until this thing is over. If a shell comes in here it will have to go through me before it can get to you!"

Miss Robinson did not stay under the bed.

Official History, U. S. A. Base Hospital, Number Thirty-one

While the bombardment was in progress the hospital was entirely cleared of patients, all of whom were transferred to another evacuation hospital, about two hours distant. At two o'clock in the afternoon nothing remained of the hospital but the riddled tents and equipment. The nurses had a cup of coffee for lunch at three o'clock in the afternoon. Their billet in the church having been pretty well shot up, they remained the ensuing night at Fontaine Routon. Within twenty-four hours of the bombardment, however, normal conditions had been resumed at Evacuation No. 4. The tents were patched up and tightened, the operating room was re-established and a new headquarters was opened. The nurses' quarters were shifted from the church to tents. The Allied guns continued to roar from the hill further back, and the screaming enemy shells continued to burst, but the range had been changed and the hospital continued to function.

M. E. Kaletski.

SALVAGE

One of the greatest of war tragedies is the tragedy of sentiment staged in the salvage warehouse of every great base hospital in the A. E. F. The performance is continuous and the program varies only in its details, never in its general plan. It is tragedy without bloodshed, and yet, for those who are called upon to participate in it day in and day out, and those who witness it, the salvage warehouse performance is full of heart pangs. For to this warehouse come the intimate personal belongings of hundreds upon hundreds of wounded and sick soldiers sent to the hospital which never will return to their owners.

Despite the most thorough and conscientious efforts of all persons connected with the institution to restore to each patient his personal effects, those things which are not issued to him by the government, not a day passes but that the mound of unclaimed, unidentified and hopelessly lost articles takes on girth and height. The ultimate disposition is uncertain. Even the most unimaginative person cannot spend half an hour in rumaging through the accumulation without finding his thoughts dwelling on the gentle hands and tender hearts that sent to the boys over there that great pile of home knit sweaters, helmets, wristlets and socks. They are all more or less alike; some have a little more purling than others and some have an extra stripe here and there. But when they come through the great sterilizer their identity is lost.

Just the other day a lad of not a day over eighteen, with a blond head that looked like a Leyendecker cover, timidly entered the salvage room, looking for a sweater. No, his name was not marked on it, but he knew he would recognize it. He was given permission to go down through the pile. Not a brown sweater escaped his close examination. He failed to find it.

"Take one of these others, they'll not be claimed", said the soldier in charge.

"No, thanks," the boy answered rather reluctantly. "I don't exactly need the sweater. I have all the clothes I need. Maybe you fellows will think I'm a mamma's pet or something, b-but she made the sweater before we left, and——" here he put his fingers to his lips in a touching effort at self control and continued,—“and she's died since then.”

Official History, U. S. A. Base Hospital, Number Thirty-one

Tears were in the poor youngster's eyes. He turned to conceal them, found himself unequal to the task, and slowly walked out of the warehouse. If all the money in the town could have restored that sweater he would have had it. But it was lost somewhere between Pont-a-Mousson where he was wounded by a fragment of high explosive shell, and the base.

Sweaters are called for more often than anything else, but they are by no means the most interesting elements in the great mound of the unclaimed. Photographs, snapshots principally, cause the greatest number of heartaches. One case in mind will remain forever as vivid as it is to-day. Among the crates of unidentified articles sent to the salvage room from the receiving ward was a package of photographs carefully tied up with blue ribbon. When it was opened in search of a name, the salvage man found it to be a series of photographs, each attached to the other. They were all of the same baby girl, the first one taken when she was a week old and each of the others at successive week intervals—thirty in all. Nowhere could a name be found. The search for the owner of the series was carried through every building in the hospital to no avail. The last seen of it was in a huge crate along with hundreds of other lost photographs. Somewhere in America, one of the nation's greatest army is "carrying on". She probably has made up and sent to the father of the little girl the second series, hoping thus to share with him the joy of watching the developments of the child he probably never has seen.

And then there is the case of Joe Doyle. They found in Joe's blanket roll when he arrived here the photograph of a mighty handsome girl. And what a smile! On the back was written in typical bookkeeper's handwriting, "Marie's love goes with her picture to the best Joe in the world!" When the photograph was found it was far from Joe's blanket roll, which had been taken apart and separated into its component parts in the regular manner. How the picture became separated from the roll no one knew. The smile took the fancy of one of the men and he tacked the picture up on the wall, over his desk, expecting it to stay there "for the duration".

One day Joe walked into the warehouse. He was a "shell shock" case and for two weeks he was completely divorced from his senses. But he came back strong and one of the first things he asked for was "My girl's picture". The sergeant in charge of the ward sent him down to the salvage warehouse. His timidity was painful to behold. There was nothing about Joe's head with its bristle of red hair, his cauliflower ears or his hard blue eyes that suggested bashfulness. But it was soon discovered that Joe stuttered.

"Have you g-g-got my g-g-girl's picture?"

"We've got thousands of them. Do you want to look them over?"

Official History, U. S. A. Base Hospital, Number Thirty-one

Joe's hands fidgeted with his buttons and he looked helplessly at the crate full of photographs.

"Maybe you seen this one", he suggested, his color slowly mounting. With a broad grin he added, "She's s-smiling and there's s-something on the b-b-back of it".

The description was ample. He was conducted to the office, and there, smiling right out at him was Marie.

"G-guess I d-d-don't b-b-blame you none", he said as he pulled out the tacks. "Did you look at w-what she w-wrote on the b-back?"

M. E. Kaletzki,
in the
Post-Standard, Syracuse, N. Y.

THE DETACHMENT

Capt. Harry M. Raub, S. C., U. S. A.

Fifty per cent of the enlisted men of Base Hospital No. 31 could be considered proper commission material. Not less than 75 per cent were by the nature of their earlier training and potential ability, qualified for warrants as non-commissioned officers. The problem of directing the activities of the enlisted working force, therefore, was not complicated by the absence of capable men, but rather by the necessity to handle men essentially too good for the nature of routine work which had to be done.

Of the original detachment of 150 men brought from Youngstown there were none who had not been successful in their personal activities. College graduates who had made satisfactory progress in their chosen profession, college students who had made good as athletes and leaders of men, men of valuable business experience and high grade mechanics—all carefully selected from an almost limitless group of candidates for enlistment—made up the working force. In the same proportion there were high grade men in the detachment assigned when Unit "G" joined the organization. Almost half of this group of men were graduates from or students at Syracuse University. Later detachments brought other desirable men also.

Among the 200 who made up the force when the hospital began its actual operation there were lawyers, merchants, mechanics, salesmen, clerks, medical students, hospital attendants, reporters, advertising writers, factory managers, claim adjusters, bankers, efficiency engineers, college professors, and almost every other sort of being. Imagine then the necessity of detailing a reporter, who had covered some of the biggest news stories of the past few years, to the unromantic job of counting linen in the laundry department. Picture a successful lawyer cutting beef, merely because his father conducted a large butcher shop. Again consider the efficiency as an office boy of a man who in civilian life was the owner of some 1,300 odd acres of Kansas farm land and who was part owner of a string of successful mid-west general stores.

A French professor at a well known eastern university found his way to the job of "tender of the mess wagon" because his desire for outside duty took him away from work for which he was better qualified. In this capacity he helped haul mess hall leavings to the farm for the pigs. Still another teacher of French, who had been used as interpreter, was pressed into service as night orderly in a medical hospital during a pneumonia epidemic

Official History, U. S. A. Base Hospital, Number Thirty-one

during which he noted in his diary: "My God, what a night! Everybody seems to be dying at once."

An engineer, who had spent years in concrete construction, made an excellent fireman, and a teacher of piano at a large eastern school for girls cooked good food until the atmosphere of the kitchen became too much for his finer esthetic senses. A tire salesman, without reflection on the quality of steaks, supervised one of the largest kitchens, and an electrical engineer was most efficient as a building sergeant. An efficiency engineer soon learned to bake good pie. An opera singer graduated from the kitchen to the detachment office, and a medical student was a success in dissecting beeves.

A successful lawyer watched over the barracks as barracks orderly, and an architect made an excellent assistant to the registrar, in addition to his duties as a sign painter. An automobile mechanic became a splendid police sergeant, and a preacher most adept in the art of serving army food. Druggists were a great help in the diet kitchen, and a hardware salesman was most gentle in handling sick men. An undertaker unloaded trains skillfully with the assistance of a storekeeper, and a draughtsman preferred the "sanitary detail." A steel mill worker was an able assistant to the dentists. A chiropractor tended fires when he was not assisting surgeons as a medical masseur. The principal of a high school was resigned to the fate of a filing clerk, and the conductor of Alaskan sight-seeing expeditions made an exceptional office manager.

There was some pleasure in all these jobs because the men were big enough to appreciate their positions. All could have done more important work had there been more important work to do. Difficulties were aplenty during the first few months until the sifting of men had been accomplished and the various departments were properly organized. At no time was the efficiency of the institution threatened by the super-potentiality of its forces. There was a period of more or less dissension during which a number of men sought to transfer to other branches of the service into which they would, perhaps, have fitted better. Because of the shortage of men here, this was not permissible.

The natural evolution of affairs took away a number of soldiers, necessitating the addition of, first a group of twenty-five men, and later two other groups totaling twenty-five, for the successful operation of the hospital. Even with this augmentation, were it not for the work done by convalescent patients, it would not have been possible to handle the immense problem of caring for the thousands of patients treated here. Through the workings of Ward "X" a great many soldiers, while awaiting discharge to duty, became stronger and better fitted for front line work by helping a little each day with outside detail around the post. Some convalescents were of

Official History, U. S. A. Base Hospital, Number Thirty-one

greatest assistance in the wards where, because of their thorough appreciation of what attention meant to the sick, they were eager to give it.

Capt. Sidney M. McCurdy, M. C., was the first detachment commander, remaining as such until a short time after the unit arrived in France, when his duties as adjutant necessitated his being relieved. He was succeeded by Lt. C. M. Reed, M. C., with Sgt. 1c Harry M. Raub detachment sergeant. Lieutenant Reed continued in command until, upon being commissioned, Lt. Raub became detachment commander. After arrival in France Sgt. 1c Harry S. Gaskeen was detachment sergeant. He was relieved when Sgt. 1c Ray L. Thomas, who had been left behind when he was injured, rejoined the command. Sgt. Thomas continued in charge of all details. During the last months he had the assistance of Sgt. 1c Lee Pelen. Sgt. 1c Alfred T. Button was in charge of detachment paper work during the first several months in France. When he was transferred to another command, from which he was commissioned, Sgt. 1c Frank E. Moore took charge of the office in which he was assisted by Sgt. A. L. Smith and Pvts. Arthur M. Devey and Robert McCreery.

THE QUARTERMASTER

Lt. Richard M. Smith, Q. M. C.

"Lieutenant, we haven't a bit of coal—and those nurses are just freezing. If we don't get some before to-morrow we'll have to close our kitchen."

"Lieutenant, I wonder if there will be a car going over to Vittel this afternoon; there is a fancy purse over there I'd like to get for my wife."

"When are we going to be paid?—Is my pay voucher properly made out and will I get it in check or currency?"

"Must I sign a receipt for all this stuff, and what's the difference between expendable and non-expendable property?"

To any person not versed in things military, questions of as many varieties and from so many different sources addressed to a single individual in the course of an hour, might seem a bit unusual, but to the quartermaster of a base hospital these would be only a few of the routine matters to come to his attention during any five-minute period of any day in the week. Because his department is charged, in a general way, with the heating, lighting, clothing, transporting, feeding, paying and otherwise generally providing for the welfare of the camp, the quartermaster is, of necessity, the most bothered man—and often the most misunderstood. Although it is generally understood that the Q. M. C. has at its command the entire resources of the United States, there is little conception of what the actual circumstances are that attend his work. The history of the quartermaster department of Base Hospital No. 31, while it presents problems entirely its own, is perhaps not unlike the chronicles of many another institution.

In August of 1917, before the unit had orders to proceed to camp, Capt. E. C. Kaefer, a regular army man of many years experience, was assigned to the organization and supervised the packing and shipping of Red Cross and other equipment procured in the United States. He was materially assisted by men of the personnel. Upon arrival in Contrexeville Capt. Kaefer's duties expanded to include the work of disbursing, construction, transportation, equipment and very nearly every other branch of Q. M. work. This system remained in vogue until in the evolution of the Hospital Center scheme, Capt. Kaefer was transferred to the Hospital Center at Mars-sur-Allier. His departure was co-incidental with the complete change in the quartermaster system at this center. The group quartermaster scheme provided for general Q. M. headquarters at Vittel, where were

Official History, U. S. A. Base Hospital, Number Thirty-one

maintained the several branches prepared to handle all the needs of the entire center. I was assigned to duty at Base Hospital No. 31 at that time.

The quartermaster attached directly to the base hospital became more of a supply officer and medium between the hospital authorities and the Q. M. C. It became his duty to assimilate the requests and requirements of the hospital and to procure all that it was possible to procure through the agency of the group quartermaster. Following the change in management the first step was the removal to the headquarters of the hospital center the large quantities of materials which had been requisitioned for the use of Base Hospital No. 31, together with some materials which had been purchased, but which, of course, were government property, and as such were subject to requisition. Included were automobiles, donated to the Youngstown hospital by residents of that city, and many articles of lesser financial value.

The discontinuance of a disbursing office in our post completely changed the nature of the work of the office. Payrolls never passed through this office, going direct to the disbursing office at Vittel. Officers' vouchers were handled here as a courtesy. Supervision was retained over the plumbing, electrical and carpenter work done in Hospital No. 31, although the workmen were under the direct control of authorities at the center. The garage and the few vehicles assigned to duty were under the control of our office, but also were subject to the dictates of the motor transport department at center headquarters. All such complications had the natural tendency to make more difficult the work of procuring what was sought for the immediate benefit of Base Hospital No. 31. The efficiency of the group quartermaster system had been proven in the main, but many details complicated the work of making supplies meet the multitudinous requirements.

During the earlier months under the leadership of Capt. Kaefer, the department personnel included Sergeant 1c Lloyd A. Mines, in charge of clothing and general detail. He was assisted by Sgt. Hugh Cover and Pvts. Bertram Lustig and Frank J. Burt. Sgt. Matthew Leskawa managed the office. With him were associated as privates, John M. Thornton and Robert McCreery. The late Sgt. Carl S. Turner headed the mechanics, among whom were D. J. Irwin, John J. Barth and Wallace Pifer. The late Sgt. Reginald V. Taylor had charge of the carpenter shop, his helpers being Pvts. George A. Millman and Robert E. McCluskey. Benjamin H. Cover was the painter. Pvt. 1c Frederick B. Artz was the department's interpreter. Following the transfer to Vittel headquarters of Sgt. Leskawa and his subsequent discharge to accept a commission, Sergeant William M. Wilbur became supply sergeant with Sgt. John M. Thornton in charge of property accounts and office manager.

Official History, U. S. A. Base Hospital, Number Thirty-one

Prior to the transfer of the original motor equipment to the group garage, Sgt. Mines was in charge of the motor facilities. He was succeeded by Mechanic Edson L. Hart, who in turn was succeeded, upon his transfer to the aviation section, Signal Corps, by Pvt. 1c John L. Ramsey. When medical supplies were transferred to the center the Q. M. office replaced the medical supply officer. Weekly requisitions from all wards were forwarded through this office, deliveries being made directly to the requisitioning ward. Sgt. George H. Watson and Pvt. Harold M. Cornelius were assigned to duty with the medical supply department at Vittel.

REVIEW OF CHAPLAIN'S ACTIVITIES

Rev. William Carson Press, M.A., Chaplain

Perhaps in no other branch of Army activities did the chaplain find as many varied responsibilities as were thrust upon him in his association with a base hospital. All manner of duties, from ministrations to wounded and the ill to writing letters, acting as censor and handling newspaper subscriptions, were cared for.

Chaplain Press joined the organization upon its inception in Youngstown, Ohio, having just completed ten years' service as pastor of the Evergreen Presbyterian Church, Youngstown. He operated under the Red Cross Commission, granted May 29, 1917, and reported for duty to the Commanding Officer of Base Hospital No. 31, Friday, September 7, 1917.

While the unit was in training at Allentown, the policy adopted left the personnel free to enjoy the rich religious privileges of the camp and city of Allentown. The chaplain co-operated with the camp Y. M. C. A. and the city churches in religious work, delivering a patriotic sermon on one occasion to more than 800 persons in the leading Evangelical Lutheran church of Allentown. In addition, the personnel had the companionship of the chaplain in quarters, at lectures and drills and on hikes. Much opportunity for individual work was afforded at this camp. On board the "Leviathan," in conjunction with three others, Chaplain Press cared for the religious needs of the many thousands of medical men and women and troops on board, in public worship and in pastoral labors. Individual work was continued and visits were paid to those ill in the ship's hospitals and to the men in quarters. The advice and companionship of the chaplain were free to all who desired the aid of a minister of the Gospel.

It was after the hospital had been established that the work of the chaplain was greatly multiplied. His activities with the personnel continued to grow with the increasingly numerous problems. Added to this was the work of looking after the spiritual needs of the thousands of patients in Base Hospital No. 31, and, during a considerable period, of Base Hospital No. 32. In this work conditions varied from time to time, the chaplain being required to perform various duties not prescribed in Army regulations. A synopsis of some of the duties would include: Social service among the personnel, such as writing letters, advising on personal matters, the ministry of consolation to the bereaved, emergency service as inter-

Official History, U. S. A. Base Hospital, Number Thirty-one

preter in French, letters to bereaved relatives of hospital patients, which frequently involved a continued correspondence; preparation of wills for soldiers leaving for the fighting front, adjustment of minor difficulties for French civilians and soldier patients, arrangement for the care of French orphans, handling subscriptions to "Stars and Stripes," distribution of home papers, and other details not regularly recorded.

In his ministrations the chaplain called upon men and women of almost every faith and religious practice. In this he had the co-operation of the Rev. Father Bouter, French interpreter assigned to the center, and enlisted men of various faiths. Chaplain Press operated as a volunteer in the American Red Cross until November 1, 1918, when he was commissioned as a U. S. Army chaplain. He accepted this commission upon notification on November 11, 1918.

Base Hospital No. 32, having arrived in Contrexeville a few days previous Bishop Joseph Francis, chaplain, had already secured the English Church for the religious work of his unit. Base Hospital No. 31 began its religious work and services in the men's mess hall with Chaplain Press in charge. These first services will never be forgotten by those privileged to attend. We were strangers in a strange land, crusaders for American freedom and human liberty. The ties of home were very strong and the love of God very dear. The American Red Cross and American Y. M. C. A. had not yet had opportunity to take over this field and until they could do so, Chaplain Press organized the recreational life of the hospitals—all were free to come. A men's chorus and a nurses' choir were organized. Musical programs and similar forms of recreation were offered evening after evening, the local talent being readily available at all times. In this manner many enjoyable evenings were passed. What difficulties were in the way were but opportunities for the further service. A piano was rented from the French. Heating, lighting and seating were arranged with the military authorities. The nurses co-operated in procuring mimeographed hymns. Later we had the use of song books very kindly supplied by Mr. Fred S. Bunn, superintendent of Youngstown City Hospital, of glorious memory. This work of mutual service fostered good-fellowship and promoted morale.

Through the kindness of Major Finck, French representative in this center, Base Hospital No. 31 procured the use of the Russian Church. This church was of unique structure and equipment, erected by the Greek Orthodox Church of Russia, the most prominent attendant previous to the great war being the Countess Wladimir. A communion service once a month and regular Sunday services were held in this church. The chaplain was assisted at the Holy Communion by Major Finck, an elder in the French Protestant Church, and by Capt. Earl V. Sweet of Base Hospital

Official History, U. S. A. Base Hospital, Number Thirty-one

No. 31 and Mr. Percy McFeely of the A. E. F. Y. M. C. A., both elders of churches in America. Miss Edith Hadsall of Base Hospital No. 31 had charge of the communion equipment and church decorations and gave most valuable help.

By July 16, 1918, Bishop Francis had left for America, and, with the approval of the commanding officers of Base Hospitals No. 31 and 32, the chaplain of Base Hospital No. 31 took over the religious work and cared for it in addition to his other duties until November 6, 1918, when Chaplain J. McD. Lacy was assigned by the U. S. War Department as chaplain for Base Hospital No. 32. From the inception of the work a union service was held each Sunday evening. Upon the closing of the American Red Cross Theater, this union service was transferred to the new A. R. C. hut. Sunday morning services were held for both units in the English Church from July 16, 1918. This arrangement continued during the stay of Chaplain Lacy, who was transferred January 20, 1919.

By January 20, 1919, Base Hospital No. 32 had transferred all patients to Base Hospital No. 31 and the chaplain of Base Hospital No. 31 now cared for the religious needs of all patients together with that of the personnel of both hospitals.

THE PROVOST

The maintenance of law and order never was a great problem in Contrexeville. Police surveillance, operated in good judgment, minimized crime and successfully checked the minor infractions of military and civil law. Only twenty-three summary court trials were held, twelve of this number being for members of the personnel. The remainder were patients charged with minor infractions of post rules. One nurse was tried and acquitted. Three general courts martial were held and special courts were convened for twice that number of cases. At all general courts martial the accused were patients, two being charged with burglary and the third with larceny. All were convicted.

Capt. Maurice P. Jones was first Judge Advocate. Upon his being transferred, Capt. C. C. Wolferth was made Judge Advocate, retaining the position for several months and later becoming Judge Advocate for the entire surrounding district. Major C. E. Coon served for a brief period. Lt. William H. Bunn served as Summary Court Officer throughout. Sgt. Harry W. Baird was detailed as Sergeant of Police on March 30, 1918, the remainder of the force being members of the personnel of Base Hospital No. 31. When the police system for the center was consolidated Sgt. Baird was placed in charge, the police force comprising soldiers detailed from the personnel of the two hospitals. This system remained in force until the provost marshal general's department took over the district, with Assistant Provost Marshal Arthur J. Kavanaugh, 1st Lt., Infantry, in charge with headquarters at Vittel. Sgt. Baird continued in charge of the military police in Contrexeville, which later was designated as the 210th Military Police Corps.

In addition to the work in connection with the hospitals, the department apprehended more than 100 soldiers wanted elsewhere as being absent without leave. All of these were returned to their proper section under guard. Included in this number were several who had succeeded in evading the military police for long periods. The report of the Summary Court Officer shows that naturalization papers were completed for two members of the command, in accordance with Article of War No. 114. The oath of allegiance was administered to several applicants, and the various duties of a notary public were performed at various times by the Summary Court Officer and the Judge Advocate of the post.

FEEDING A BASE HOSPITAL

Capt. Harry M. Raub, S. C., U. S. Army

Continually increasing prices, uncertainty of supply sources and restrictions on purchases are three factors which tended to make difficult the problem of feeding the thousands of patients, personnel, nurses and officers of Base Hospital No. 31. The necessity of buying in the open market commodities essential to the success of hospital diet created a hitherto unknown market for French produce. Where, in the beginning, prices for such commodities were entirely in keeping with the standards generally understood by persons acquainted with similar situations in America, there later was a more or less gradual rise.

In many instances prices more than doubled during the year we were in the market for such articles as green vegetables, fruits, eggs and some meats. In no case was there a reduction in price even during the height of a growing season. Perhaps this situation can be attributed to either of two circumstances, one of which was particularly hard to remedy. The willingness of the average American buyer to pay any price for a commodity he wants taught those who controlled local markets to guide themselves accordingly. Failure to establish standards for quality, weight and price for the entire A. E. F. left each locality ignorant of what another community in the same general neighborhood was paying for most foodstuffs.

Experience in the purchase of eggs, which couldn't be purchased through regular U. S. Army quartermaster commissaries, was illustrative of the problem which had to be met. Unlike American markets, there were no means of contracting for large quantities of eggs, to be delivered when desired. As a result this most necessary foodstuff was scarce and, therefore, expensive. In order to get enough eggs to keep the diet kitchens supplied, it became necessary to go into every small town within a radius of forty kilometers and seek the most enterprising woman in the place. For a certain margin of profit such women were willing to undertake the collection of all eggs in that immediate vicinity, to be gathered by the "mess" truck on a certain day each week. This system worked out nicely until other hospitals and army organizations entered the same locality and adopted the same and only means of getting supplies. Competition immediately developed; the demand outgrew the supply and prices increased, despite agreements previously made.

Official History, U. S. A. Base Hospital, Number Thirty-one

The individual American soldier, also, was a factor. There were few men in the command who did not find a certain place "out in the country" where they could buy enough eggs at almost any time to provide a few omelettes at their favorite cafe in town. Individual purchases of this sort had a tendency to raise the price at the source. Dealers who had been glad to sell eggs at 3 francs 50 per dozen in the winter and early spring found a ready market for their supply at from 8 francs to 9 francs per dozen. Practically the same ratio existed in the purchase of other articles. When it became necessary to buy potatoes in the open market prices were not to be compared with the figures of the year before. Every variety of fresh vegetables had jumped in price beyond all bounds.

By cultivating a "war farm" according to the plans of the gardening department, a purely local source of supply was created. Because of the unfavorable weather, crops were not bountiful. The investment, however, was worth while. Less than \$50 spent for seeds produced more than 280 bushels of potatoes, which represented a gross value of approximately \$700 had it been necessary to buy that quantity at the usual price of about \$2.50 per bushel. The farm provided also, a considerable supply of meat which could not be procured at any price from U. S. stores and which was very expensive in French markets. Early in the year twelve large pigs were purchased for 2000 francs. They were fed on mess hall "leavings" and when killed showed an average weight of 330 pounds, or approximately 4,000 pounds. Later twenty-one smaller pigs were purchased for 2830 francs, and gave an average of 150 pounds, dressed weight, or an approximate total of 3000 pounds. The total amount of pork received from this medium was about 7000 pounds. Pork could be bought for an average price of 3 francs 50 in French markets in this part of the country.

Aside from difficulty in getting fresh supplies, staples were not as plentiful as might have been desired. There were times when it was necessary to go a long distance to get even canned goods. With the establishment of an issue commissary in this center, however, this difficulty was alleviated to a great extent. General orders, forbidding the use of canned fruits, flavoring extracts, cocoa, etc., except for hospital diet, removed from the list many foodstuffs which go to make the well balanced diet that is always desirable.

Handicaps were not limited to the problem of procuring food. Unlike other hospitals, it was the policy at No. 31 to feed the personnel in a single mess hall. Likewise, until toward the last, a single kitchen prepared food for all the hospitals, except hospital buildings which housed officers. Inability to get coal good enough to maintain sufficiently hot fires and difficulty in procuring a suitable water supply made it necessary to abandon the single kitchen system after it had been proven the most economical. While a good coal supply was available it was possible to prepare meals

Official History, U. S. A. Base Hospital, Number Thirty-one

for more than 2,000 persons in a single kitchen. Up to 500 were served directly from this main kitchen. A mess truck carried the food to other buildings to be heated, if necessary, and there dispensed.

A careful computation proved that in the concentration of cooking forces there was a great saving in labor, time and food. The quality was never allowed to suffer by quantity production. It was with regret that it was found necessary to abandon this plan. A change was made imperative by the unsatisfactory water supply in what had been the main kitchen and the uncertainty of the coal supply. By the establishment of an issue store room it was possible to keep an accurate check on the quantity of foodstuffs used by each kitchen, all commodities being purchased through the issue store room. Centralization permitted the maintenance of large supplies of all available staples, thus simplifying purchasing.

When Base Hospital No. 31 was organized in Youngstown the Red Cross fund furnished equipment for the operation of a 500-bed unit. This included six double burner and three single burner ranges of excellent type, together with adequate utensils and all manner of tableware. Upon expansion it was necessary to more than double all equipment for kitchens, and more than four times the original table equipment was required. Although it was possible to get sufficient ranges to meet all needs, it was difficult to get the proper utensils. Much of the copper pieces used in the French hotels had been removed during the preceding three years of the war and only a few pieces were to be had.

Perhaps nowhere were the shortages of food products felt more than in the diet kitchen, over which Miss Jeanette Martner, a civilian employe, presided, with Miss Mary McLenahan, A. N. C., assistant. Called upon to prepare hundreds of special diets for each meal during rush periods, this department was forced to utilize substitutes of marked inferiority in the effort to approach the standard desired for special diets. At all times Miss Martner adhered closely to the calories system of special diets, figuring the food values of all components of meals for typhoid patients, as well as pneumonia and nephritic cases. There was some difficulty in the serving of special diets, because of the impracticability of serving direct from the diet kitchen. In the hospital kitchens an effort was made to make trays as appetizing as possible. Often it was impossible to accomplish a great deal with food prepared for quantity service. Special care was exercised at all times in the arrangement of "specials", however. Miss Martner was most efficient in the administration of her department, at all times seeking to introduce into the military hospital work special diets which she had used with great success in her civilian work. She accomplished her purpose despite the difficulty in getting ingredients.

Aside from the regular hospital mess, the mess officer's department exercised supervision over the nurses' kitchen, the officers' mess and the

Official History, U. S. A. Base Hospital, Number Thirty-one

kitchen which supplied the officers' hospital. Major John L. Washburn was mess officer of the unit for several months after arrival in France. He was relieved when Captain Raub, who had been non-commissioned officer in charge of mess, was commissioned lieutenant. Sgt. 1c John M. Fraser succeeded Lt. Raub as mess sergeant, continuing until he was commissioned as second lieutenant, S. C., when he became assistant mess officer. He was assisted in the clerical branch of the department by Sgt. 1c George L. More, and Corp. T. Hugh Rees. The issue commissary was under the charge at various times, of Corp. Paul F. McGinley and Pvts. Charles B. Wakefield, Waldo E. Ripple, James W. Davis, Sidney Rolfe and Gust Spong. Upon the elevation of Lt. Fraser and his subsequent transfer to Base Hospital No. 99, Hospital Sgt. Lloyd A. Mines took charge of the mess, and proved eminently successful.

The larger kitchens were under the direction of three sergeants, William J. Rupp, Hugh Cooper and Arthur M. Stone. The butcher shop was under the management of Cook John L. Horan, assisted by Cook Frank Nicholson and Pvt. Edward E. Sayers. Cooks Harold T. Schubert and Joseph Seifert were in charge of the diet kitchen, and Cooks Arthur T. Nield and Harry A. Ford ran the kitchen of the officers' hospital. Cook Richard S. Hunter managed the nurses' cuisine. Among the other cooks on duty were Victor A. Bolin, Robert Dewhurst, Raymond J. Farber, Carl Helander, Robert V. Hessler, Charles M. McGlynn, Clarence H. Nicholson, Michael Pilachowski, Cecil W. Whitworth, John Bovill, Jr., Maurice L. Doust, Frank Moore, Eugene T. Hobbs and Finley F. Reid.

PERSONNEL ACTIVITIES

To those whose experience with the American Expeditionary Forces was limited to service with the front line outfits it may be difficult to explain that one of the greatest problems encountered in the administration of an S. O. S. institution such as a base hospital, was the element of personnel activity. Because the enlisted personnel comprised, for the most part, a better than average type of man, eager for what would seem to be more virile action than ward or office work in a hospital, there was a constant feeling of unrest. There seemed too few natural outlets for the physical energy that seemed bound to tear through and be expended in more strenuous activities than were to be afforded. Routine drills, followed religiously during the weeks of preparation, had to be abandoned while the hospital was in operation. Too many men were on necessary duty at all times to permit of full formations. Every effort was made, therefore, to encourage any activity which would tend to offer variety from the trying normal occupations of a base hospital unit.

Perhaps no one element in the activities of the enlisted personnel, in connection with hospital life was more appreciated than was the Base Hospital No. 31 Band. Organized in Youngstown, soon after the original enlistments had been effected, this organization, consisting principally of inexperienced but willing embryo musicians, made a consistent effort to furnish military and concert music on all appropriate occasions. Even before there was an immediate prospect of being ordered overseas the members of the band gathered for rehearsals during June, 1917. Although some of the men had instruments, others had to be purchased. Through the activities of Lt. John U. Buchanan necessary purchases were made, the funds being supplied later from the proceeds of a picnic conducted under the auspices of the enlisted men.

The personnel of the band included: Cornets, William Gribble, Charles Morgan, Earl McCluskey, W. W. Winfield, Arthur John; altos, William Stewart and Lawrence Turner; trombones, Ray T. Schottenberg, Samuel McClellan, Hugh Cover and Paul Cover; clarinet, Raymond Kane; piccolo, John Bovill; baritone, A. L. Smith; tuba, Edson L. Hart; snare drums, Ben Cover, Lloyd Gleason and Randall McNabb; bass drum, Albert Fraser; cymbals, Cyril P. Deibel. In camp at Allentown the band was merged with the larger Ambulance Camp Band. As part of this larger organization the men of Base Hospital No. 31 participated in the Red

Official History, U. S. A. Base Hospital, Number Thirty-one

Cross parade in New York City. On other occasions, when the Camp Band was not available the unit organization played at all formations. Before leaving camp at Allentown all instruments were packed for shipment overseas, compelling the band to remain idle as such until finally established in France.

Upon the arrival of instruments in Contrexeville in March, 1918, the work of reorganizing was begun under direction of Pvt. Ray T. Schottenberg. In the reorganization four musicians from Base Hospital No. 32 were included, making the band a post institution, although it remained to all practical purposes the Base Hospital No. 31 band. Sgt. Ernest Scheller, cornet soloist; Pvt. Bishop, clarinet, and Pvt. Gaumer, saxophone, added needed pieces. Pvt. Paul R. Matthews became band leader. During the earlier months of hospital activity the band was regularly a Sunday afternoon attraction. In rush periods, however, this was not always possible, members of the band performing other duties in the hospital. Unlike other A. E. F. bands, the work of making music was always secondary to routine or fatigue work of the unit. Despite this fact rehearsals were attended religiously and when, during several summer months, the band had the assistance of Capt. Edward Stellar of the 168th Infantry, and then a patient in Base Hospital No. 31, the hospital had one of the most proficient small bands in France. Midweek evening concerts were not uncommon, and frequent trips were made to nearby camps under the auspices of the Y. M. C. A., represented by "Dad" McFeely. The band was always available for formal functions and often played at the larger dances given by the officers of the hospital center.

Another musical organization that played a prominent part in the life, not only of Contrexeville and Vittel, but of many another nearby American camp, was the Contrexeville Jazz Band—perhaps the first of its kind to be organized in France. This orchestra was conceived early in April, 1918, soon after the arrival in Contrexeville of a number of "jazz artists" as members of Hospital Units "G" and "R" attached to the two hospitals in this center. The members of this orchestra were: Paul Matthews, piano; Walter B. Onorato, banjo-ukelele; Jesse E. Cantor, banjo; Maurice H. Robineau and Lloyd Gleason, mandolin; Daniel Griffin and D. K. Jones, violins, and William Duffy, drums—and all that goes with them. The Contrexeville Jazz Band was in demand throughout the Advance Section of the A. E. F., frequently making trips to provide music for some little affair designed to break the strain of war activities even in the more advanced areas. While awaiting embarkation orders the Jazz Band was a great attraction throughout the billeting area at Nantes.

While from all parts of France there came stories of "the greatest baseball team in France", there was stationed in Contrexeville, among the enlisted personnel of Base Hospital No. 31 a group of baseball players who probably were capable of meeting success in any scheduled compe-

Official History, U. S. A. Base Hospital, Number Thirty-one

tition in France. Because of the nature of routine duties as members of the hospital corps it was never possible to permit the practice necessary to produce a finished aggregation. The record of victories won, however, is a just chronicle of what was accomplished by this team in its efforts to make more interesting the normal existence in an S. O. S. camp.

Although the principal opponents were teams made up from other hospital units in this center, several trips to nearby camps were made with much success. When the season closed there was no question as to the championship of the center, Base Hospital No. 31 holding the margin over Base Hospitals 23, 36, and 32. Other teams met were Base Hospital No. 18, and Evacuation Hospital No. 6 at Bazoille; Veterinary Hospital No. 6 at Neufchateau; and 15th Engineers at Liffol le Grande. Other teams could not be challenged because of the difficulty in arranging transportation in periods when all motor vehicles were needed in front areas. The team was captained by Harry Baird, a professional well known in the middle west, and was managed by Lt. E. R. Thomas, as officer in charge, and Corporal Charles H. Kaletzki. Among the players were D. Jay Irwin of Washington and Jefferson University; William J. Rafter, William M. Wilbur, Louis L. Goes and Ernest J. Eberling of Syracuse University; Sheridan L. Weaver, Frank J. Burt, Charles S. Carpenter, Daniel P. Griffin, Maurice H. Robineau and George L. More. Many of them had been prominent as semi-professional and amateur players in Youngstown and Syracuse.

Baseball was not the only athletic activity during the summer season. Tennis courts, maintained during peace times by the hotels, were available for the enlisted men, as well as for the officers and nurses. They were constantly in use. Football, in season, was curbed by the Argonne drive, which took away even the few minutes each day that would have been needed to make a successful gridiron aggregation. Basketball was indulged in during the early winter, but poor facilities for this game discouraged its continuance.

Members of the personnel frequently engaged in theatrical performances for the entertainment of the hospital patients. During June a minstrel show, in which more than 50 persons participated, was staged at the Red Cross theatre. The cast included men from Base Hospital No. 32. A return engagement was imperative. Another similar, though smaller, performance was later staged. The Red Cross hut was opened with an amateur performance by enlisted men. Impromptu entertainments were not infrequent and made for more livable camp life. For the officers and nurses there were frequent dancing parties except during the periods of great activity. Among the more notable functions were the farewell parties tendered Lt. Col. A. E. Schlanser and later Lt. Col. Colin R. Clark upon their departure to take up new work to which they had been assigned upon their promotion. When in January, 1919, the ban against social relations

Official History, U. S. A. Base Hospital, Number Thirty-one

between enlisted men and nurses was lifted, a series of dances and other parties was arranged under supervision of the proper authorities. To the enlisted men these were a most welcome diversion and to the nurses the parties with the enlisted men were a pleasure to look forward to.

THE AMERICAN RED CROSS

The final summing up of the accomplishments of Base Hospital No. 31 would fall short of its purpose if it did not do full justice to the tremendous achievements of one great institution. To the American Red Cross, as the representative of the American people, must go forth in most laudatory terms credit and glory for a great task nobly done.

From the moment of inception of the plan to send a base hospital from Youngstown and the auxiliary unit from Syracuse, the Red Cross was in the forefront of activity. During the early days of organization the Red Cross women in the two cities knitted, made bandages, hospital garments and all manner of other things to send along with their doctors, boys and nurses.

After arrival in France there came the thousands of dollars' worth of equipment purchased in the name of the Red Cross. From time to time there were received direct shipments from America—and all from the Red Cross.

But, beyond all the noble work done for this unit by the people back home, there was unbounded energy expended by the American Red Cross through its hospital representatives in Contrexeville.

To summarize a few of the accomplishments, for which too much credit never can be given, the following acquisitions for the use of the two hospitals in Contrexeville should be mentioned:

Bath House, of the Etablissement Hydrominerales; Sorting and Receiving Station; Red Cross Hut; Convalescents' Farm; Theater; Barber Shop; Nurses' Club; Officers' Club; Nurses' Garden.

In its practice of free distribution in hospitals the American Red Cross brought to patients in our hospitals, up to date of official closing:

Thousands of pounds of smoking tobacco; thousands of packages of cigarettes; 20,000 magazines; 300 newspapers daily; 20,000 sheets of writing paper weekly (at certain periods); 10,000 envelopes weekly; 15,850 Christmas packages.

In its service of accommodation the Red Cross served as the Contrexeville branch of almost any bank. Statistics included in an official report as of January 1, 1919, show:

Total exchange purchased.....	56,512.33 francs
Money remitted to America, cash.....	35,679.60 francs
Money remitted to America, check.....	8,320.80 francs
Money remitted to America.....	\$926.11

Approximately 2,000 francs of stamps were sold.

Official History, U. S. A. Base Hospital, Number Thirty-one

Other bits of service included the following, as reported:

[1.] Furnishing emergency hospital supplies upon requisition signed by the Chief Surgeon, or the Section Surgeon, of S. O. S.

[2.] Advice on legal matters, including the drafting of wills, contracts, etc.

[3.] Consultations on matters of all kinds, including financial and family troubles.

[4.] Furnishing turkeys at Thanksgiving time to convalescents in both hospitals.

[5.] Loans to soldiers under the plan originated by the A. R. C.

[6.] Establishment of "sunshine rooms" in several of the hospital buildings.

[7.] Shopping service.

Over and above all items that might be mentioned in any official report to the headquarters of the American Red Cross the representatives of that institution performed more works of great merit than ever will be accredited them.

Capt. Lawrence E. Hitchcock was the first representative in Contrexeville, arriving soon after the establishment of the hospital, in February of 1918. He blazed the trail. He learned what had to be done and what could never be done through Army channels. It was his foresight that resulted in a foundation capable of carrying the growth that was going to be necessitated by the activities of the hospitals. When he was called to headquarters at Paris he was succeeded by Capt. William H. Thompson, to whom is due the credit for a continuously liberal policy through the period of greatest activity. The big work finished, Capt. Thompson was returned to the United States that he might resume the personal activities he had relinquished at great sacrifice. Capt. T. B. Watkins took up the work next, and had the clearing up of much of the A. R. C. affairs, together with looking after the interests of the hospital personnel, which was sorely in need of something to divert attention from the ever pressing question—when are we going home?

At various times the personnel comprised: Mrs. Pearle C. Nicholson, Miss Isabel D. Brownlee, S. LeRoy Layton, Miss Margery Sawyer, Mrs. Lydia C. French, William Lawless, William J. Rafter, May P. Foster, Mary K. Taylor, Genevieve L. Swezey and Beryl M. Johnson. Upon the opening of the Red Cross hut, Misses Eva E. Sorenson, Ethel M. Hurley and Kathleen McMahon were assigned. Sgt. Francis Kirwin, Corp. Robert Walton and other enlisted men were assigned for duty at various times from the detachment of Base Hospital No. 31. Aside from the work accomplished the very personality of the workers made for immediate

tremendous success. It was not always what they did, but, rather, how they did it that endeared the entire institution to the thousands of American soldiers for whom they always displayed tender concern.

Perhaps the greatest of all blessings brought to the American soldier was the bath house, which was in operation on the arrival of the first convoy of patients for Base Hospital No. 31, on May 2, 1918. To the casual onlooker who watched the long lines of wounded and sick American soldiers filing into the bath house—their faces drawn and frequently besmirched with blood or smeared with dirt, there was a most pathetic sight. Those boys had put every last lick they had into the fight from which they had come only because they were physically incapable of more. What a change there was, when a few minutes later, perhaps even before the last of the line had passed into the bath house, there appeared the first—divested of all material substances with which they had entered, except perhaps a few trinkets—or a picture of a mother or best girl; with clean face, cleansed body and revived heart, a new pair of pajamas, a real bath robe, a pair of slippers—and a nice cozy, warm blanket thrown over all. There was a change in appearance but it was as naught compared with the inner metamorphosis. Much of the battle of curing that boy was won in the bath house, when, together with all the dirt he brought, was washed away the discouragement that came with death dealing fighting. Combine with the pleasure of that first bath in weeks—or maybe longer—a good puff at a cigarette, handed out and lighted by the same Red Cross girl who brought a cup of steaming hot coffee, and there is immediately a new state of mind. The grouch smiled and the little fellows who hadn't been away from home and mother for very long almost wept for the joy of it all.

Perhaps in no other way can the work of the Red Cross be better traced than through the career of a single patient in the hospital. The primary step having been taken at the bath house, we next find the patient tucked between the white sheets of a Red Cross hospital bed. Because quiet is the prime essential he is left alone for all the first day. On the second day—or maybe the third, in rush times—the cheery voice of a little lady—perhaps a little grey haired lady, is heard in the corridor: "Are there new patients in this room?" Affirmative answer ushers her in—her arms laden with little bags, with colors as various as the bags are numerous. With a smile showing genuine happiness in the deed, she hands the bag of mystery to the curious lad, who could lose not a minute in opening it, to find: A tooth brush—treasure of all treasures to the American soldier; his last one had been lost in the fighting! A pad of paper, a pencil and some envelopes—what a chance to catch up on lost correspondence—if only he could write! A chocolate almond bar and some raisins,—a feast! A postal card to send home to the folks, and a large O. D. handkerchief, among a wealth of other little knick-knacks; a package of "ready-mades" and some "Bull".

Official History, U. S. A. Base Hospital, Number Thirty-one

Perhaps the next day is the scheduled occasion for the tobacco distribution, when another worker—perhaps the captain or lieutenant, or one of the boys, would come in with a package of cigarettes and some more tobacco. Another day and they would be around again—this time with the latest magazine, a copy of the "Stars and Stripes" or the daily papers—always something, and always cheerfully distributed.

That sort of thing continued throughout the stay of the patient. Able to get about and out of doors, the place he thought of first was the Red Cross hut—whether morning or afternoon. Usually, though, it was afternoon because at least three times each week, at 2:30 o'clock, the boys were served a steaming bowl of delicious chocolate or coffee such as Army kitchen never produced—and a little package of cakes. The billiard table, piano, games, writing tables, magazines, books, and the phonographs offered amusement aplenty for the remainder of their time. And then in the evening the movies—or perhaps some special show, or just an open house, when there always was someone present to play the piano and start the fun, attracted capacity throngs. For the fellow who was not getting along so nicely, and who could not go to the hut—or who could not write letters home, because his right arm was crippled, or worse—the Red Cross girls were among the first in writing letters, telling all about it.

It was not infrequently that a Red Cross searcher received requests from anxious relatives to trace some lad too ill to make his whereabouts or condition known. Invariably the proper information was forwarded and the lad put into direct communication with those who were most entitled to know.

And what of the lad whose mind had been shaken by the ordeals through which he had passed—the shock cases and the seriously ill? In almost every building occupied by Base Hospital No. 31 there was a special "shock room" fitted with the ordinary articles available in France, but selected with the knowing taste of Mrs. Belmont Tiffany of New York City. The walls were repapered and the windows curtained—the lights shaded and the tables and chairs covered—all in a certain well chosen color scheme.

It is impossible to use any one set of cases in exemplifying the work of this most appreciated institution. Each individual had his troubles—and nowhere was there anyone more willing to help than at the Red Cross. Much of the activity among the patients was carried on under the direction of the Searching and Home Communication Service. The general duties performed by the searchers in this department were:

- [1.] Attending each funeral of an American soldier.
- [2.] Writing a letter to the family of the deceased.
- [3.] Making weekly reports on the seriously sick and wounded.
- [4.] Writing letters for the soldiers.

Official History, U. S. A. Base Hospital, Number Thirty-one

[5.] Searching for men reported to be missing or dead, among their comrades in the hospital, to ascertain possible whereabouts if alive, and, if dead, details of death and burial.

[6.] Social work among the seriously sick.

One of the greatest boons to the convalescents was the barber shop operated by convalescent patients. It was opened on October 3, in the Salon de Tir, near the hut. The services included razors, shaving soap, shaving brushes, towels, hot water, and almost everything to be found in the modern American shop. The convalescent barbers cut hair for their comrades, and shaved those who were unable to shave themselves. Those with a "good right arm" utilized the facilities placed at their disposal. Up to the time when the shop was closed, because all barbers had been evacuated, 10,166 haircuts and shaves had been given in the period covering about three months. Patients at the hospital were not the only ones to appreciate the Red Cross. While the hut was essentially for the convalescents, men of the personnel were always welcome.

More than anything else, however, the bath house was the institution universally enjoyed. An evidence of how much it was used is seen in the figures which show that during the six months ending October 30, 1918, there were 30,913 baths taken. The bath house was closed during a short period in November for the installation of nine shower baths, and from then on it was impossible to compute accurately the number of baths furnished. An estimate showed an average of 150 each day up to the time the hospitals were closed. The Red Cross furnished coal, towels and soap. Labor was furnished by the Army. Base Hospital No. 31 was charged with the operation, Sgt. Frank W. Sheppard being in charge. He was assisted by Pvt. 1c Arthur Mulvihill and Pvt. Arthur Nostrant as engineers.

The hospital profited also from the Convalescents' farm, the labor being performed by patients under direction of men of the personnel, in charge of Sgt. Lee J. Pelen, and later Pvts. 1c George F. Ebeling and Edward Hasenplug. It was never expected that a heavy yield would be obtained from the small acreage, leased by the A. R. C., but unfortunate weather conditions reduced even the hoped for crops. A fair variety of produce was raised, however, bringing to the hospital diet a bit of green stuff that was much sought and but for the farm seldom available.

The theater opened on May 2, 1918, was a popular attraction almost nightly until it was closed on October 14. Inability to heat the place during the winter and the opening of the hut led to its abandonment.

To the eighty nurses of Base Hospital No. 31 the nurses' club and garden were two most attractive institutions. Particularly during the latter months when there was not a great deal of activity the club house was a favorite rendezvous. Afternoon tea, special little card parties or an

Official History, U. S. A. Base Hospital, Number Thirty-one

afternoon's session with the sewing machine were among the permissible and attractive events at the club. During the summer months the garden offered a pleasing respite from the routine of ward duty. Dr. C. C. Graux of Paris had given the Red Cross the use of his garden situated to the rear of his villa, which was in use as barracks for the enlisted men. The land, about four acres in extent, was planted with shrubbery, fruit and shade trees. Many of the nurses had individual garden plots where they could plant and care for such things as they wished. For the officers there was opened a prettily furnished club house where were an attractive library, writing room and card room. Several well-appointed chambers were maintained for casual officers or Red Cross men visiting in town. The club was under direction of M. Amin.

Base Hospital No. 31 cared for more than 8,000 patients, and each and every one of them is just the sort of booster that the American Red Cross deserves. There is only one shortcoming—they cannot boost enough.

CHARACTERS

Even the patriotic Frenchmen say that all French villages are alike—a few rows of white houses with red roofs, a few crooked, narrow dirty streets, a church in need of repair, a civic square with a statue of Jeanne D'Arc, the municipal laundry fountains, and the boucherie, boulangerie, epicerie, a multitude of cafes and the schoolhouses.

But buildings and streets, fountains and schools, cafes and boulangeries do not make a village. In the homely old New England word, folks make villages, and cities, too, and of folks, Contrexeville had its share. As in other villages in the world, one finds in Contrexeville a few distinct souls. Back home we used to speak of them as "characters", although I do not mean to speak of these individuals in Contrexeville in the same tone that we used to speak of the "village characters".

After all, however, our clearest memories of Contrexeville will center about the native men and women and children who formed so intimate a part of our life during the year of hospital service. Lest the memories grow too dim I deem it a duty to attempt to perpetuate them in word portraits, confessing at the outset that the task is worthy of Balzac; and that the courage I have in starting is the courage of those who rush in . . .

Madame Harmand and Monsieur Harmand

She is the village Lady Bountiful and he is her knight. Do not presume that she is a lady of silks and velvets, glistening heels, gold lorgnette and coach and four. Really she is quite an old lady. She and her husband own one of the largest of the group of summer hotels in Contrexeville, which, during four years of the war was used as a hospital, three years by the French and one by the Americans. Madame Harmand heads this list because not a patient, enlisted man or officer, ever came in contact with her without saying soon afterward—"There's a thoroughbred", or words to that effect.

Once upon a time she was strikingly beautiful. Her skin to-day is like parchment with still a trace of the color of another day. Her hair is quite gray. Her eye is the same deep blue as of yore and it has the same sparkle. And when she speaks to you in her perfect French she speaks so slowly and distinctly and with such a wealth of tone and eloquence of gesture that you understand her even if you do not understand what she is saying.

Official History, U. S. A. Base Hospital, Number Thirty-one

She is the "Lady Bountiful" because she is the one person in the village to whom the poor and afflicted look for assistance in time of need. Are the Americans foolishly on the point of throwing away a pile of splintered lumber? Madame Harmand will see that the poor get it. Does Lisette need a doctor? Madame Harmand will arrange to have Dr. Bunn see her. Is Private Bill Jones down on his luck, and down in the mouth and homesick? It is the miracle working Madame Harmand who looks out of the window as he passes, and smiles upon him with a most motherly smile and bids him enter. Entering, Bill Jones finds a wedge of cherry pie. Truth to tell it isn't as good as mother used to make, but mother will have to bear up under the truth when I tell her that Bill appreciated it more than any she ever made him.

And Monsieur Harmand: The Americans knew him less because he liked to have the Madame keep the center of the stage. And he spoke his French somewhere about twelve degrees below his larynx; perfectly impossible to understand him. The boys learned to know and respect the old gentleman with the huge shaggy head and the badly bent back. I, at least, never will forget my first view of him. He wore a gingham apron, and wooden shoes. He was smoking a powerful pipe and was pushing an ancient wheelbarrow and I thought he was the janitor of the building. He was, right enough, but he was the proprietor, too.

Most of us have said that some day we shall come back to Contrexeville, to see it in gaiety rather than in sadness. Every last one of us has promised to call on the Harmands. Also, all too few of us can keep the promise, but they shall dwell forever in our memory.

Avis!!!

Rum-a-tum-tum-tum-tum-tum-tum.

All the housewives are looking out from their windows, the youngsters gather around, the butcher has stepped into the street, wiping his hands on his apron. The ancient dame in the cafe has left her customers. A withered old man dressed in a Napoleonic uniform, weighted down with an immense drum and a full appreciation of his importance, stands in the middle of the road. All traffic—American included—has ceased. The town-crier has an announcement to make.

"Avis"! he cries.

He draws from his belt a carefully folded sheet of paper, carefully unfolds it, and in accents utterly incomprehensible, even to some of the natives, he reads that the Mayor says that the populace from now on can have two pounds of potatoes, or that all dogs must be muzzled. The reading over, the paper is folded again and replaced. Follows then one tap of the drum. If another announcement is to be made the entire proceeding is repeated.



THE PICTURES

Upper left: Monsieur Gerard standing before his Boucherie. Mme. Gerard in the background.

Upper right: Pere Brossard, his niece and his dog.

Upper center: A native woman making lace. Old?—no! She's only forty-five.

Lower center: Washing clothes at the public laundry.

Lower left: The village postman, prepared for the winter.

Lower right: The bread wagon comes to Suriauville.

Official History, U. S. A. Base Hospital, Number Thirty-one

Then he limps along to a point about a hundred yards down the road and repeats all his announcements.

Time was when the Americans used to ask the old fellow what it was all about. He used to try to explain, never successfully. Concluding finally that we were all hopeless dullards, he adopted the policy of telling us nothing or at most:

"Pas grand chosel!"

His Honor

The Mayor of a French town is "no small shakes", as one of our boys from Ohio said one day. The Mayor of Contrexeville is a distinguished appearing old gentleman who dressed always in black broadcloth and colored spats, except when he wore an alpine uniform with golf stockings and a feather in his hat. He is an austere person, both feared and loved by the villagers, thoroughly respected by all the Americans and genuinely admired by the few who knew him. He lives in the finest house in the village, set upon the top of the highest hill.

On Memorial Day, July 4 and July 14 he took an important part in the ceremonies, always delivering a speech, and a good one too. He attended the exercises, dressed in his usual faultless broadcloth, augmented by his official emblem of office, a tri-color ribbon sash worn over the shoulder. He endeared himself to the American soldiers on July 14 when at the close of the military exercises in the square he broke the stiff solemnity of the occasion by waving his hat in the air and crying with contagious impetuosity, "Vive l'Amerique! Vive La France!"

Pere Brossard.

Back a few centuries in the days when the fountain head of all activities, social, political, educational, as well as ecclesiastic, centered in the church, a Bishop with an eye for the beautiful caused to be erected in a vale not far from Contrexeville a monastery. Perhaps there is a bit of irony in it, but we of Contrexeville knew it well—sometimes too well, alas—but never as a monastery. The Bishop's Farm was always our one sure-fire asylum from "the horrors of war" and Pere Brossard with his wife, his dogs and his omelettes was the sacrilegious successor of the ancient clerics.

It was a pleasant half hour's walk—in fair weather—along the aspen bordered Suriauville road and then down the wooded lane to where the red-roofed old retreat looked out upon miles of meadows and forest. There one heard, in spring, the haunting call of the cuckoo and at late dusk the heavenly song of the nightingale. Pere Brossard, dressed in corduroys, leather leggings and a modern cap, usually greeted us as we mounted the terrace. His sole-leather skin wrinkled in smiles when he recognized us. He differed little from his countrymen in his attitude toward the Americans'

Official History, U. S. A. Base Hospital, Number Thirty-one

francs, but he and his robust young wife had the faculty of making you feel that even if you were dead broke you might eat a "sanglier" chop and drink a bock of Graves superieur.

When his guests were not too numerous Pere Brossard used to like to lure us away from his trashy parlor with the nickel-in-the-slot piano, down through the spacious kitchen with its odd assortment of open fireplaces and toy ranges, down into the barns where dwelt sheep, goats, cows and horses. If you knew this Vosgien Boniface real well he would take you down further, into the damp cellar where in the hesitant flicker of his "lampe pigeon" you saw veritable walls of bottles, many of them half buried in earth. And on one memorable night when a group of officers having their first holiday out of the lines had without authorization absented themselves from the hospital and were enjoying a feast of broilers and waffles, old Father Brossard and I solemnly knocked the head from a bottle which he vowed was thirty years old. It was Burgundy, rich, mellow, deep-toned, warm-blooded Burgundy. And how he smacked his lips over it!

We were a veritable godsend to the Brossards. In other days their dining room and dance hall were always crowded with the visitors who had been gathered from all parts of Europe to drink the waters of Contrexeville and Vittel. Many a world celebrity has eaten wild boar and drunk Burgundy at "La Ferme des Eveques." But during the war they did not come and the Brossards, although they said frequently that we were lacking in the niceties of appreciation—that an ordinary Chablis to our taste was as good as a Chateau Yquem—the Brossards, I say, were always mighty glad to see us, even in the days when we had to bring our own bread and sugar.

Pierre.

"'Allo, Buddie!"

The years will glide by as the milestones glide by along the highways of steel and ballast, and Contrexeville will grow dim in our memories even as the milestones grow dim in our eyes—but never will we forget Pierre. Pierre with his laughing blue eyes, his round head crammed full of old thoughts, his feet made awkward by wooden-soled shoes, his odd aprons and his French tam-o-shanters. We never knew him except as Pierre, and when we wanted to refer to his mother's bakery we always spoke of "Pierre's mother's bakery."

He was the first among the youth of Contrexeville to make friends with us. As we sat on the benches in front of Madame Harmand's window—or in front of the spunky Terrache's barber shop, it was Pierre who said, "'Allo, Buddie," or "'Allo, Jean Jacques," or "'Allo, George Le-Roi". It is not difficult to recall the early days when we stood retreat, first in front of the Harmand and then in the colonnade. Then Pierre and his friends took up a position opposite the buglers, and every note of the

Official History, U. S. A. Base Hospital, Number Thirty-one

difficult calls was repeated in a voice that mocked the bugle. We only feigned surprise when we saw Pierre line up all the kids in the village and go through the ceremony of lowering the colors with all the sobriety of a company of "regulars".

Among the youngsters of Contrexeville Pierre was supreme. Some day perhaps he will be a Senator of France—just as Joe Heffernan predicted.

Monsieur Gerard—and Madame.

In America he unquestionably would be the head of a Chicago meat-packing company selling everything from quarter-beeves to massage cream, and his wife probably would be gliding along Michigan Boulevard in upholstered grandeur. But in Contrexeville he was simply the butcher, and the village's most progressive merchant, while his wife was the bejewelled and silk-stockinged supervisor of domestic finances and public morals.

Many an American butcher can learn a lesson in appetizing cleanliness from the marble and tile "boucherie et charcuterie" of the Gerards. And how many lessons could Monsieur and his assistants learn from their Chicago colleagues in the utilization of "everything but the squeal." Their butcher shop—as well as the slaughter house and residence—were next door to the Continental Hotel and the Base 31 mess hall. With thoughts growing less sad in the passage of time we may now recall with what agonized looks we gazed upon the fresh cuts of veal, pork and beef within the Gerard shop while we walked along our bankrupt path to "corned bill and macaroni"!

Monsieur Gerard was butcherish in appearance—which is to say that butchers look pretty much alike the world over—not too fat, but immensely well fed. He looked upon the world with utter complacency and a great deal of dignity. He had good meats and sausages, butter and pates, and he knew they were good and if you wanted them you had to pay the price. On Sundays he appeared in his black frock coat—and on that memorable Sunday when his really beautiful daughter received the First Communion he wore a glistening plug hat.

Madame Gerard always carried her head rather high, and it is not difficult to believe the neighbors when they say that in her girlhood she was quite the most beautiful creature in town. It will have to be admitted that she has grown a little stout, but not unpardonably so,—and she never was surprised in garments that were anything but spick and span. Diamonds always dangled in sparkling splendor from her ears, and a heavy gold brooch always registered the unruffled movements of her generous bosom. True it is that in the French cities Americans found a code of conduct which could not be reconciled to American ideas and practices. But in Contrexeville and the thousands of other French villages there

Official History, U. S. A. Base Hospital, Number Thirty-one

exists an inelastic standard of public morals and private conduct which must call up the days of Roger Williams. And Madame Gerard, whether she chose or no, was the public preceptress.

As she presided at the cash drawer, past which filed all of the meat-eating housewives of Contrexeville, she exchanged a few sentences with each of her callers—sometimes in whispers, and again in easily audible disdain. No family skeletons could rattle in a tune strange to her ears, and the secret hopes and fears of every household were as legible as her well-kept ledgers.

A remarkable family the Gerards—good citizens and exemplary butchers.

Terrache.

Terrache the gaunt—he of the long legs and long hands and pink beard—was the village barber. We taught him how to cut hair in the American style. We impressed upon him the vital necessity of sharpening his razors. We lifted him from the despondence of poverty to the insolence of undreamed prosperity. And he maligned us for it. In his unintelligible argot he called us American pigs and professed to scorn our money. We doctored him and his wife and his child and in reward he condescended to treat with us—the untutored, rough-edged spendthrifts from out the brazen West.

But he was interesting and picturesque. We used to marvel at how he could preserve his one blue suit, for it always looked neat and well brushed no matter how many heads he trimmed in a day. No rush of business could prevent him from closing his shop at noon and taking an hour and a half for “dejeuner”. He was independent, he was, and he knew he could get away with it. His idea of humor was to say something disrespectful of an American in the presence of an American and several French customers, and he would say it in a brand of French that no American ever learns thoroughly.

Madame Terrache was not remarkable for her sweetness of disposition. If she had learned in her childhood the value of brushing her teeth occasionally she would have been fairly good looking, for she had a wealth of glorious auburn hair and pretty eyes. But what a tongue! There was a time when the convalescent French soldiers, like the convalescent Americans and British, were given brooms and shovels and put to work on the streets. This was so violently offensive to Barber Terrache and Madame that not only were Americans in danger of going unshaven and unshorn, but the Madame upbraided the poilus for their supine submission to the orders of the vulgar Americans.

How preposterous! How ignoble! How base! To make the heroes of France, the defenders of Verdun, the immortal guardians of the glory of La Belle France, sweep the streets! Never so long as breath remained

Official History, U. S. A. Base Hospital, Number Thirty-one

and a heart beat in the patriotic breast of Madame Terrache! Let the Americans sweep the streets if they must have such silly ideas of cleanliness! We were clean enough before they came, anyhow! But to debase our own poor sick heroes by replacing their beloved rifles with brooms? It must not be! She would see the Commandant! She would see the Mayor! She would write to the Minister of War!

Well, she did not have to write to the Minister of War. The Commanding Officer, while a soldier, was a peace-loving man and knew the Madame's capacity for scorn. The poilus swept no more.

And forever after Monsieur Terrache sneered more eloquently as he rubbed in the lather and Madame—well, Madame lowered her eyelids and raised her chin as she passed us by.

M. E. Kaletzki.

AMONG THE FRENCH

Capt. William H. Bunn, M. C., U. S. A.

When Base Hospital No. 31 arrived in Contrexeville it was found that all the luxuries and most of the necessities of life had been given up "pour la Patrie". There was no heat, some food, little light, no music and no sanitation. In one respect, however, Contrexeville was better than her sister villages in that a French military hospital cared for her sick. Soon, however, all the French physicians were taken away with their hospital unit, thus leaving the community without a native doctor. Then requests began to come to us asking for medical care. Some of us who spoke and understood a few French phrases volunteered our services, a step which will never be regretted for it gave us an intimate glimpse into French family life which would not have been obtained in any other way.

It afforded us an opportunity to see at first hand with what fortitude mothers, wives and children bore the vicissitudes of war. We witnessed the extremes of human emotion in a race strange to us. We saw anxiety give way to joy when good news came from the loved ones at the front. We helped usher into this world children who would never see their soldier father. We saw mothers bravely dry their tears when official notice of the son's death was published. We soon saw that these people were very much like us, if not in habits of living, in their deeper emotions. We believe that they meet sorrow with a dignity, reserve and resignation greater than our own people. Their expressions of joy, although not as spontaneous, last longer than ours.

Our first patient came during our early days here. Jean, a young boy, hobbled into the village with the help of his crutches and his dog hitched to a baby buggy. He had come seven kilometers to see the American doctors. We found that he had an advanced tuberculous condition of one of his knees. As we could not operate on him at that time, Miss Edith Hadsall, one of our nurses, walked to his home twice each week in winter weather to care for him. As soon as our equipment arrived Lt. Col. Sherbondy amputated his leg above the knee. Jean is now well nourished, has been measured for an artificial leg, which will be bought by the Red Cross, and thinks that all Americans are "tres bon".

Our policy was to do emergency work, only, among the civilians and this we held to strictly during rush times. However, when we were not very busy we did some relief giving, health restoring operations. For the first few months we were permitted to use a small auto or Ford ambu-

Official History, U. S. A. Base Hospital, Number Thirty-one

lance to visit patients in nearby villages. We encountered some examples of extreme poverty and dire need of medical attention in some of the little hamlets off of the main lines of travel. One crippled old man who had lived in his poor one-roomed hovel for a week was found to be suffering from pneumonia. He had been without food for six days and there was no one to care for him. He was sent to the Red Cross hospital at Neuf-chateau where he made a speedy recovery.

The "fame" of the American doctors soon spread abroad so that as many as fifteen patients asked for consultation in a single day. With all there was very little abuse of the privilege of coming to us for medical advice. The Sister of Charity took care of all minor ailments, and did it well and faithfully. She depended entirely upon the bounty of the people for her living. Obstetrical work of the community was done by a midwife who called us only when there were some complications.

Too much cannot be said of the work done by Miss Hadsall. She spent most of her off duty and much of her wages on the indigent sick. She certainly had the true spirit of social service. Major John L. Washburn frequently had sizable eye clinics. Capt. Bierkamp did several tonsillectomies. The officers in the Dental department gave willingly of their time for emergency dentistry. Several families, especially refugees, were absolutely destitute, some of them suffering from injuries due to bombs. These families were aided very generously by some of our officers and vow that it was the Americans who saved their lives.

Aside from the satisfaction of alleviating suffering and receiving the little gifts of eggs, strawberries, wild game and mirabelle offered by the grateful patients we found that we had been protecting ourselves in caring for them. There was some one from nearly every house in town who worked in the hospital or laundered for the personnel. We spotted several cases of diphtheria and other contagious diseases, established an effective quarantine and probably prevented some epidemics.

MILITARY SURGERY AT THE FRONT

(From a Review of the Work of Surgical Team No. 17.)

Lt. Col., E. S. VanDuyn, M. C., U. S. A.

(Commanding Officer, Hospital Center, A. P. O. 732, A. E. F.)

Having had the opportunity to participate in the surgical activities of one evacuation hospital, a base hospital serving as such and a base hospital serving as an evacuation hospital, and to observe the work of several front mobile and field units, I have formed some fixed impressions of what has been done well and what might be done better to improve military surgery in active campaigns. Because the lessons learned in the emergency work near the front lines and the larger work at the bases must have a bearing on the future policy of American Army surgeons it is interesting to trace the workings of the various army hospital formations as we have experienced them.

On arrival at Contrexeville there came a call for the organization of surgical teams from staffs of all base hospitals. One of these was made up from the personnel of Hospital Unit "G". As its chief, I was sent to Evacuation Hospital No. 1 for observation. This was for demonstration of the new methods adopted in the primary care of wounds. Evacuation Hospital No. 1 was located at Sebastopol, about six kilometres north of Toul and about twenty kilometres behind the lines. During the period that I was there practically all operations peculiar to war surgery were exemplified, and daily visits were made in the wards. Beyond this there was no special method of instruction in vogue, although there were many interesting discussions following ward observations.

After my return our team held itself in preparedness for a call to active duty. The call came on the 9th of July when the following team, designated as Surgical Team No. 17, was ordered to proceed to Evacuation Hospital No. 4 at Ecury, five kilometres east of Chalons:

Major E. S. Van Duyn, Chief; 1st Lieut. Murray A. Cain, Assistant; 1st Lieut. Arthur D. Meyers, Anesthetist. Nurses: Augusta Morse and L. Grace Cotton. Orderlies: Sgt. Ernest J. Eberling and Pvt. 1c Alvia H. Morrow. Arriving at Ecury during the night of the ninth, it was found the hospital was in course of erection. No officers were present, all being billeted in the town more than a half mile away. Tents had been pitched and the members of the team got a few hours sleep under rather trying conditions.

The hospital was in the open fields, without supplies of light or water, for which arrangements had to be made with a French hospital nearby.

Official History, U. S. A. Base Hospital, Number Thirty-one

The French did not seem to understand the temporary character of our hospital and would not give light before the erection of permanent poles, or water without laying pipes in trenches two and one-half feet deep. The hospital had been there four days when our team arrived but was not yet ready for business, because of many such difficulties having been encountered. On July 15 work started to come from the then very active front. The detachment, 175 men, worked like beavers and light and water were in the operating tent and some other places in time for its use that night. X-Ray and sterilizing units were put in commission and all was in readiness when at 6 P. M. the first four surgical teams started on their first twelve-hour shift.

There were six visiting attached teams and two made up from the hospital personnel. The second day after work began Mobile Hospital No. 2 came to Ecury, having been shelled out of Bussy, and its teams worked with us for several days. There was a great variation in the skill and rapidity with which some teams worked. While one team would do forty or even fifty cases in a twelve-hour shift another would do but ten or twelve. After a short time certain teams were being called upon to do all the most severe cases. For a period of two weeks work was very heavy—at times as many as 100 to 150 cases were awaiting operation, while new ones were coming in continually.

Teams got tired under the strain and worked slower. The threats of bombing added to the fatigue, Chalons, five kilometres away being bombed every night. The Boche never failed to fly over our heads at such times and this was followed by showers of anti-aircraft shrapnel necessitating wearing metal helmets even when operating. The camp was bombed one night, one large bomb falling 100 yards from the two officers' sleeping tents. The following night this was followed by machine gunning, but without casualties. The shock work during this period was particularly fine, and the triage work was better than at any time later.

When the American fighting southeast of Rheims relaxed we were ordered to La Ferte. The trip was made by auto, more than seventy French Camions being required to move equipment. Officers and nurses filled twelve ambulances. I was started out ahead in charge of the nurses. It was during this trip that I became particularly impressed with the fact that specialists, who had entered the army to aid in their particular line, should be treated with protective care as one does a race horse, instead of being used for such drudge work as having to spend a night on foot on the road looking for an ambulance loaded with nurses which had been lost on the journey. Provision for a night's rest would have better fitted one for the morrow's intensive work. Such fatiguing procedures, combined with the fact that no food was available from noon one day to the next during the trip, never tended to increase the efficiency of operating surgeons and their assistants.

Official History, U. S. A. Base Hospital, Number Thirty-one

Five kilos from La Ferte and fifteen kilometres south of Chateau-Thierry we found ourselves stationed in Chateau Pereuse, a fine building with spacious grounds, owned by a French woman named Mlle. Durnez, who had given its use to the French Army as a hospital, she, herself working there as a nurse ever since the commencement of the war. When the French turned this site over to our hospital we acquired about forty French patients, too ill to be moved. Twenty-four of these were chest cases, of whom four died later. They fell under my special care and this was one of my most valuable experiences. The Chateau proper, a large brick and stone building with a beautiful outlook, was used as the operating pavillion, shock wards and sterilizing room. Here we learned the mistake of grouping all shock cases in a single ward. Shock cases should be divided into at least three groups, separated if possible: One, new arrivals requiring heat baths and transfusion; two, noisy and delirious patients, and a third, patients resting and quiet after treatment. It is obvious that the noise disturbs and is harmful to the others' chances. The remainder of the hospital was tented and sheltered as far as possible under the trees at the edges of the large lawns, the interspaces being heavily wooded. Our work at Chateau Pereuse was intense all the time we were there, (July 21st to August 4th). When the German retreat had gotten well under way, plans were made for us to follow the advancing lines. Our next move was made, as before, by auto and camion, to Coincy.

Our location at Coincy was assigned by the French, as always, and was on the site of an old French "Auto-Chir" that had been captured and burned by the Germans. It was on the railroad, directly across the tracks from the depot, or what was left of it. With a French supply dump a hundred rods away, an airdrome not a half mile away and a magazine dump and American naval gun emplacement in the woods behind us, it seemed an admirably chosen spot to invite bombing, but had too many advantages, such as the railroad and water supply, to be refused. We were set up and working in forty-eight hours, and had work aplenty the minute we were ready. During the rushes our team split up and took care of three tables. One sergeant and one nurse anesthetized. Lt. Meyers assisted Lt. Cain at one table and one nurse assisted me at the other. On the third table a patient was being prepared. Lt. Cain's fine work here proved this the proper way to develop new teams. All instruments furnished were according to army specifications—one would think from specifications made after the Spanish war—and many needed modern instruments were lacking. Later I bought some in Paris, for chest and head work, being unable to obtain them otherwise.

At Coincy our wounded came from the Vesle, in large numbers at first, but later the numbers decreased from day to day. Here we had many gas cases. I saw 1,500 at one time in one field hospital. It was while at Coincy we had the opportunity to go up and see the most forward medical

Official History, U. S. A. Base Hospital, Number Thirty-one

work. This was both interesting and instructive, showing us the conditions under which our patients had received their first dressings and care.

It was at this time that two incidents occurred which much impressed me—why it should be these two of all the multitude and variety of things seen I don't know unless it was my particular mental and physical state at these moments. Certainly, they were neither the most unusual, curious or horrible. The first was in going from Ecury to Pereuse in the early morning light after having been hidden in a woods during the moonlight hours, driving some twenty miles south of the battle line, the road lighted with its flashes and echoing to the guns, we passed through two or three villages, completely evacuated. Shuttered and still as death, the inhabitants gone, not even a dog to be discovered, the villages stood as if the wicked magician had waved the wand. It was all so ominous of evil as they waited in deep silence the expected entrance of the foe. The portent of this grim expectancy oppressed me terribly so that afterwards even I dreamed many times of those villages.

The second was just as I had finished an operation in the Chateau Pereuse. I was called hurriedly by an attendant to come into the hall. There on a stretcher, one of a triple row along the great hall and all filled with badly wounded, was a young man who in his restlessness had loosened the bandages around his neck. This had started a severe hemorrhage, and great spurts of blood were shooting from his wound, covering his face, his chest and pooling in all the folds of his clothes. One could see at a glance his corotid must have been cut, and if not quickly stopped he would bleed to death. The wound was on the left side of his neck. I compressed that corotid but without stopping the flow. With a knife I quickly laid open the wound. It did not extend to the left but behind the trachea. Plunging my fingers in the wound I encountered a large piece of shell imbedded deep in the right side. It had cut the right and not the left corotid. Before this could be exposed he was dead.

I learned a lesson in this case that I think saved at least one other case. Without losing time trying any other means, first follow the wound tract with the finger to the point of hemorrhage and expose immediately. Of course I am not speaking now of wounds on the extremities where a tourniquet always can be used. The struggle to get to this bleeding point before life had ebbed, the misleading location of the wound, the strong, handsome son of some mother dying there when a minute's time could possibly save, the ghastly surroundings and the work we had come from and must go back to, made a tragic moment.

There is one other thing I wish to take the opportunity of telling here. I was often impressed in handling the severely wounded with the truthfulness and generalness of the statement that America had entered this war through exalted purpose and her soldiers were true crusaders. Most soldiers who overcome abject fear do so by becoming fatalists and so in a way

Official History, U. S. A. Base Hospital, Number Thirty-one

stoics. Consequently there was a minimum of complaining and no opposition to such suggestions as operations. Too, when they took their anesthetic, while few talked, those who did almost invariably showed their true and dominant feelings in this war at a time when they felt the moment for them was a question of life or death.

I remembered for a time many things said. They grouped under two headings: One, "Down with the Boche", "At them, boys" and not because they were the enemy but because for what they had done; "He sank the Lusitania", "He kills prisoners", "He murders women and children"; and the other thought—"Yes, I want to do my part", "I mean to stick—never mind the wound", "I don't care what happens to me", "I mean to do my share", "Mother wants me, I want her, but she knows why I am here and she sent me". (This I wrote down at the time), also: "I want to go back, but not until it is all finished and the Hun is licked". They all took the French motto: "Liberte-Egalite-Fraternite" as their own and made it of world application.

On September 9th word came that no more patients should be received and to get ready to move. As it was understood we were going to the Argonne I asked permission to take the team to Base Hospital No. 31 for new supplies and to join the hospital at the new station. We had gone for weeks without adequate supplies of personal things and instruments which we might have had with us had there been more than a word of information with the instructions that originally took us from the base. Permitted to go to Contrexeville, we made plans there to return to the proper station as soon as required. A telegram came, however, ordering us to go to Red Cross Hospital No. 110, still stationed at Coincy. This was due to the fact that we were not present when the hospital moved, but as we would have only to return I obtained permission to keep the team at the base and there to await call.

Almost immediately after our arrival at the base heavy trains of preoperative cases began to arrive at our center, and the team went to work under orders of Col. Keller. This work continued up to the time of the Armistice. Twice call was sent in for the team, but each time the request was made for us to remain as our services were still needed at the base.

Due to this experience it was possible for us to compare from actual experience the different values between primary surgery done at the front and when delayed to be done at a base hospital. The problem of first aid to the wounded at Contrexeville was much different than at the front. Though some trains contained cases but two days wounded, the cases were for the greater part four or more days old when they reached this base. Some had been properly selected but others not. Some had travelled directly from the front dressing stations, riding three or four days in trucks and were much the worse for it. Properly selected cases as to the character of their wounds and not in shock suffered little from additional

Official History, U. S. A. Base Hospital, Number Thirty-one

delay of a day, but in other cases it was often well nigh fatal. Especially was this true if the delay were more than two days and the patient suffered marked physical exhaustion from previous exposure to cold and lack of food. This selecting was, therefore, of the greatest importance. In cases of gas infection received under these conditions, whether as preoperative or infection secondary following previous operation, operative methods that had been employed successfully at the front failed and high amputation gave the only chance. In infected wounds showing cultures of streptococcus haemolyticus amputation before the advent of general septicemia was usually indicated, though I had several notable successes by complete removal from origin to insertion of the entire muscular area involved.

In the cases received, previously operated at front hospitals, we experienced ample proof of the poor ultimate results of hurried, or improper work, which justify the statement that, whatever the press of work, a front hospital should only operate in so far as the work can be carefully, properly and thoroughly done and that further work should be sent on to a properly equipped hospital base. If these cases are at all carefully selected the additional delay is less disadvantageous.

Appended are some brief notes previously made on front surgical hospitals, the character of their work and their organization:

Debridement: In the use of debridement I noticed two points particularly that have not been emphasized in most writings on debridement: (a.) In front surgical hospitals, many men employed a general technic of debridement without apparently any true appreciation of its limits of applicability, or what they were undertaking to accomplish, i. e., render a wound sterile by mechanically removing all contaminated tissue, without reinfesting the wound or injuring nature's defenses in the tissues remaining. (b) The technic was followed in cases when, due to the general condition of the patient or multiplicity of wounds present, the time element necessary should have deterred.

Laboratories: Bacteriological laboratory work in front hospitals was of little value in the treatment of a case that called for immediate operation and would be evacuated within a few hours thereafter, but was of great value in corroboration or correction of the operator's deductions for the improvement of his judgment in future cases.

Triage: The officer who reviews, classifies and decides the question of immediate disposition of the case has the most important position in a front hospital. It is his duty to divide cases into the following general classifications: Those that don't need operation, those that can safely wait if necessary, cases for shock ward and those that need immediate operation. Another class could include those that need both shock treatment and immediate operation. This man should also be the one to say, in a rush, what cases can be best shipped as preoperatives to base hospitals

and decide in what cases the surgeons should be called in consultation before sending them to the operating table where often the surgeon to operate sees his patient only when the anesthetic is about to be administered or has already been begun.

X-Ray: It is essential to tell the presence and size of a foreign body, especially in the chest, head, abdomen or pelvis. Exact localization is very valuable but not essential if one follows the tract and dissects in layers, by which method the tract need never be lost.

Joint Cases: Much argument has arisen over the proposition of early and continuous active motion being employed in all joint cases. My own opinion is that after closing, without drainage, a joint that has been thoroughly cleaned, motion should not be employed for four to seven days, unless the advent of infection has required reopening, when active motion will keep the synovial pockets emptied.

Primary Dressings: If surgical or operative sterilization (debridement) of a wound is well done, the essential of the first dressing is simply protection. A dry sterile dressing, amply large, and surely fixed in place, to assure the greatest possible protection therefore, completely satisfies this condition. The possible advantage in a wet dressing is in preventing scabbing and in furnishing a dressing less painful in its removal, but to hold this advantage the dressing must remain wet until it is changed and which is frequently impossible where the wounded are often two or more days in transportation. Packing a wound should never be done. When gauze is packed deeply and firmly in a wound it has been done for two reasons: (a.) To arrest bleeding, and this should be accomplished entirely by ligation; oozing may be controlled by painting the surface with a five per cent. solution of iodine, or ether; (b.) To keep the deeper parts of the wound open to drainage. This should be accomplished through the technic of the operative procedure, long incisions and relief of all fascia and other tissue tension. Packed gauze is not a drain but a cork. The Carrel use of Dakin Solution is practically impossible in an evacuation hospital which is sending back its wounded as quickly as they are able to stand transportation. Moreover, following debridement, it is not indicated. When both are employed one or the other is incorrectly chosen. The Carrel-Dakin method has a definite indication in the presence of increasing local infection not amenable to operative procedures. In such a condition, like water on a fire, it lessens the virulent activity and gives needed time to nature and the surgeon. War surgery has brought the surgeon to a fuller realization than ever before that ultimate results depend largely on the thoroughness and technic employed in the post-operative dressings and care. Restoration of function, rapid cleaning and healing of the wound, avoidance of secondary or mixed infection depend fully eighty per cent. on the trained after-care and the wound dressing which should be performed with all the technical skill and care of detail of a sterile operation.

Official History, U. S. A. Base Hospital, Number Thirty-one

Chest Cases: Operate all but those with no rib fractures or not marked pneumo-thorax or haemothorax. After operations close all but the skin. If a drainage tube is used it should not be too long, should be sealed in the wound and connected with bottle apparatus. Operate at the beginning with local anesthetic, and if patient is distressed, finish the operation under gas oxygen. Usually post axillary line, 6" interspace. The earlier the operation the better, unless there is deep shock. In later care do not hesitate to re-operate and drain if the needle shows recollection of fluid with any chance of infection, remembering a single syringe full of reported sterile fluid doesn't prove a sterile pleural cavity.

To those who belonged to surgical teams sent to evacuation hospitals for work several points for improvement suggested themselves: [a.] The organization proper of the hospital should be restricted as much as possible to facilitate rapid change of location. [b.] The surgical work should be entirely done by attached teams, the number of which can be changed constantly to meet requirements. These teams should carry their own equipment of instruments and consist of a sufficient number of officers, nurses and men to run two or three tables (and so be developing material for new teams), and also have one man and one nurse to spare for constant supervision of the post-operative cases. [c.] These teams should not be looked upon by the regular organization as outsiders and necessary nuisances, but given every facility for their best work and personal comfort. [d.] Special shock teams should also be attached as well as gas teams if gassed cases are to be expected. [e.] The triage officer or officers should belong to the regular organization, be most carefully selected as holding the most important place and should make frequent critical reports to the Chief Surgeon of the work of the various teams. These reports should be acted upon. [f.] Greater co-ordination from the front and back should be established either by the inspection of consultants visiting the front hospitals and then the bases to which these patients are evacuated, to carry back a statement of the conditions as found at the front and bring forward reports of results obtained; or by sending, from time to time, members of these teams back with their patients to meet and learn criticisms from the base.

THE FRENCH SURGEON

Capt. Colin McFarquhar Reed, M. C., U. S. A.

The French surgeon, in his operating room, and during the few leisure hours between rushes presents a most interesting character.

As a member of Surgical Team No. 16, U. S. Army, organized soon after our arrival in Contrexeville, with Lt. Col. James A. Sherbondy as its head, I had a splendid opportunity to observe the habits of the men of the medical profession with the French Army and to learn much from them. Other members of the same team were Capt. Charles H. Moses, assistant to Lt. Col. Sherbondy; Capt. Orrin D. Hudnutt, Roentgenologist; nurses, Miss Clara A. Wack and Miss Mary Mitchell, and Pvts 1c, J. Paul Snead and Harold Funkhouser. I was with the team as an anesthetizer. The French had suffered great losses among their medical men in the German drive which began on March 21, 1918, and which had as its objective the Channel ports, with Amiens the first stop. Our team, like many other American organizations, had been summoned to the assistance of our hard-pressed ally.

Our orders came on April 9—to proceed with haste to Beauvais, Department of Oise, and report to the French in that city—no other instructions. We arrived in Beauvais the evening of the eleventh and the following morning were told we were to work with the First French Army under command of General Debeney. We received orders to report at Crevecoeur, with three other American teams which had just arrived. From Crevecoeur we traveled in camions with a team from Base Hospital No. 8 to Cempuis, a village of about 300 inhabitants, southwest of Amiens and northwest of Montdidier. There we found two "Auto-Chirs", No. 1 and No. 20, our team being attached to the latter.

The nurses were placed, together, over a small cafe while the officers were billeted singly in houses far separated. Lt. Col. Sherbondy, who was then a major, was placed with the coffin maker. Capt. Hudnutt lived with the maker of wooden shoes; Capt. Moses with an old lady, who later became frightened and left the country fearing a further advance by the Germans, leaving Capt. Moses alone. I was quartered in a very nicely furnished room, but the chickens lived overhead and the cows often looked in through the windows at night. The enlisted men lived in pup tents, on the ground, but during bad weather lived with French soldiers wherever they could find quarters in the buildings used as a hospital.

Official History, U. S. A. Base Hospital, Number Thirty-one

It was just a bit before seven o'clock when we went to the old school building in which was located the dining room, finding there about twenty officers, about half of whom were administrative officers, all anxiously awaiting the call for "dejeuner". After the dinner, of several courses, and which we suspected was in our honor, (we were later disillusioned, when we learned this was a daily affair) we felt we knew the whole bunch. We had also learned what we sought to know: What is an "Auto-Chir." "Auto-Chir" is derived from the official name—"Automobile Chirurgical Ambulance", meaning automobile surgical hospital.

The entire hospital equipment is carried in five especially built camions moving thus: No. 1,—large steam boiler and portable operating building, to which is attached a large delousing sterilizer. No. 2,—X-Ray equipment with portable building. No. 3,—Pharmacy and laboratory. No. 4,—Litters and tentage. No. 5,—Cots and mess outfits, to which is attached a large field kitchen. Officers and nurses travelled by camion or train, depending upon distance to be covered; the men on foot or train. The entire hospital could be taken down, packed and prepared for moving within three hours and could be put up, ready for full operating duty within five hours after arrival. The greatest service is to do primary operations at whatever point they are most needed within the sector of the army to which they are attached, moving from place to place as the fighting shifts, usually working about six miles from the front.

Due to the recent heavy losses Auto-Chir No. 20 had been ordered back to the little village where we joined it, and where was located a large "gas hospital" together with Auto-Chir No. 1. Both Auto-Chirs were situated in an orphans' school in a small patch of woods adjoining the village. The orphans had been evacuated to Paris during the retreat. The buildings were used for hospitalization and beds filled every room, making an ideal hospital. One building was used for quarters for the officers and nurses. Several small dining rooms were called "Popots" by the French. The term will linger with us as long as there remain thoughts of the many friends we made there, among the French officers. We found the medical officers of No. 20 to be the leading surgeons of Paris, a few of them teachers in the medical department of the University of Paris. The Medecin Chef, or chief surgeon, was Major Shevasceau, professor of Surgery at that school. Number 20 remained only ten days after our arrival, being transferred from the First Army and ordered to Belgium. We could not go along being assigned to the First Army and so were transferred to No. 1, without changing our location, except for operating rooms and dining room. The nurses, Miss Wack and Miss Mitchell, seemed to be a puzzle on the Medecin Chef's hands. He did not use nurses in the operating room and as we did not care to have them as ward nurses it was decided best that they, with the nurses of all the American teams, return to their respective bases.

Official History, U. S. A. Base Hospital, Number Thirty-one

The operating rooms were in small portable houses, canvas covered and built against the large camions, which contained the sterilizer, with a small tent close by. The equipment was of the best and supplies of everything were in abundance. Never did we wish for any chemical, splints, or dressing that was not to be had. We had taken operating equipment, such as special instruments, gloves, etc., and tried, at first, to keep ours apart, but soon turned all in to the competent sterilizers, who arranged trays with every necessary instrument and dressing for each type of case. Special cases, such as head, abdomen, chest, etc., had special trays, always ready when called for.

The wounded were brought back from the front, where they had received first aid dressing, by ambulance; carried into the triage tents, where rows of litters had been placed on supports built from tree limbs. The necessary paper work was quickly done, male orderlies removed the patients' clothes by cutting away most of it, placed valuables in bags which were properly cared for and bathed the patients with warm water. Carried into the preparation ward, the patient was placed on a table where a culture of the wound was taken to detect gas bacillus, and the wounded parts were thoroughly cleansed and shaved. This work of preparation completed the laboratory report was ready showing the nature of the infection. Appropriate serums were injected, if positive reports were made, together with anti-tetanic serum. If negative, only the anti-tetanic serum was injected. Here, also, the patient was classified as "Grand Blesse" or "Petite Blesse"—heavily or lightly wounded. The seriously wounded went to the main operating room, the others being taken to auxiliary rooms where they could be handled quickly and started on their way back to the larger hospitals in the rear. The heavier cases, after operation, were classified for immediate evacuation or retention, according to the best judgment of the surgeon.

Up to this time the patient had not come into contact with the gentle hand of woman, but now, those too seriously ill to be sent to the rear came under the care of the wonderful type of French woman. I must tell more about them, because during the four years of hardship they have suffered, they have become so proficient that no one, seeing them, could refrain from writing pages about them and their wonderful work. Volunteers, such as nurses' aids, these girls were trained in the hospitals of large cities, in a few weeks, and sent out in groups of ten under the direction of one older woman, acting as directress and chaperon. Remaining intact at all times, these units were sent from one point to another as occasion demanded.

The group at our hospital was made up of women between the ages of 22 and 30—as near as we could ascertain without becoming too inquisitive—and we thought they were particularly pretty and attractive. They did not know what hours of service meant because they usually spent as

Official History, U. S. A. Base Hospital, Number Thirty-one

much as fifteen hours a day, working at full tilt, in rush periods, often remaining longer without a word of complaint. They could do, and took delight in doing, any and all dressings and did them well. They did not know what an orderly's duties were because no work was too hard nor beneath them. Above all—they always were cheerful, singing at their work and in their play. In their few hours away from the wards they were to be found in the woods or fields, at their games or doing athletic stunts. They would slip out there for an hour or so and then back to their patients. Nearly every day, wild flowers were found in the wards, the girls picking them in the nearby fields. When their other work was finished they wrote letters for the patients. They did everything as though attracted by the novelty of it all, but in questioning them we discovered nearly all had been doing the same thing for three and four years. The spirit of these courageous girls was an inspiration.

In our three months with Auto-Chir No. 1, the operating was divided into two shifts, two teams working each turn. Each team comprised the surgeon, his assistant, the anesthetist and corps men. The X-Ray teams worked on corresponding shifts with their teams. Our team worked from 7 A. M. until noon; rested until 8 P. M. and worked until 7 o'clock the next morning; rested until noon and then worked until 7 o'clock that evening. This arrangement made sixteen hours of service of the first twenty-four and seven hours the next twenty-four, and assuring us a full night's sleep every other night.

The character of the work was primary "debridement", or cleaning of the wounds, removing foreign bodies and destroyed tissues; splinting fractured bones, and, in fact all manner of operations falling in the category of war surgery. We had heard and read much concerning "primary suture of wounds" but we had not been with the Auto-Chir twenty-four hours before we discovered that that was a thing of the past—a very nice procedure in so-called "peace time surgery" which meant, when the activities in the trenches were almost nil and only a few men were being wounded. But, now, that wounded were coming in so rapidly the only primary suturing was upon head, chest, abdomen, joint and hand wounds. I must not go further with the surgical side because it would require pages and the object of this paper is only to chronicle the trip of the surgical team.

The wounded we worked upon were a cosmopolitan lot. Our records show French, English, Belgian, Spanish, Portuguese, Algerians, Senegalese, Sudanese, Russian, Americans and German patients. Our cases were preponderately French, but every now and then a stranger would come through and would be handled in the same manner, even the Germans. Germans came through frequently and sometimes in great numbers and always were accorded the sort of treatment that should be given a wounded man, no matter under which flag he fought. We had no wounded Americans until the battle of Cantigny, the first coming from the First Division, which

Official History, U. S. A. Base Hospital, Number Thirty-one

played such a glorious part in that initial American attack northwest of Montdidier. A great many of our own brave boys were brought to the gas hospital, situated nearby and which we visited. We were the only American mourners of many who died and we had built quite an American cemetery on the hill before we had a single American at our own operating table.

We experienced a few air-raids while with the Auto-Chir, all of which seemed directed at aviation and munition dumps, on either side of us. The first raid on an April night came after we had gone to bed. I was awakened by thundering detonations. I would have taken an oath the Germans had broken through and were now in the village with all their artillery and using every piece of it. If I was not mistaken they had one of their "Jack Johnsons" working outside my window. The bombing was constant, every boom coming nearer. The window had been jarred open and I looked out. I could hear airplanes and see bursts of fire in the air—so I decided it was the finish of the village. Later I came to look upon this occurrence as a mild disturbance. French officers had not even heard of it—and so I decided never to mention anything that happened, but merely to accept all as a matter of course. The bombing became a nightly affair after that. Our hospital never was touched, but another at Grandvillers, one and a half miles away, was bombed twice, killing several persons each time. We came to regard them more or less as storms and learned to go to sleep to the tune of bursting shells which rattled our windows.

Aside from the surgical knowledge acquired, the great outstanding feature of our work with the French Army was the wonderful spirit of the officers, nurses and men, who after their long hard fight still possessed that "never say die" spirit. With us at our hospital was Major Andre, personal physician to Marshal Foch. He divided his time between the Auto-Chir and the requirements of his chief. To all of his comrades he was a source of hope and encouragement, reflecting to them the spirit of confidence of the Marshal of France.

Perhaps the attitude of our French associates was best displayed on July 4 when a celebration was held. When Lt. Col. Sherbondy entered one of the hospital wards in the morning he found the entire place decorated with wild flowers and flags. In the dressing room, where all the nurses had gathered, the directress made a touching address, presenting to Lt. Col. Sherbondy bouquets and souvenirs. Champagne was opened and a toast drunk by all—to the glorious Day of Independence and the day of ultimate victory for the Allied cause. Our chief was asked to drink with each individual patient in the ward. He did,—there were but few patients. A few days later we learned our team had been cited with other American units, for the efficient and courageous work done under great stress in the general orders of the First French Army, on July 1.

RESUSCITATION

Capt. Earl V. Sweet, M. C., U. S. A.

The co-operation of the medical and surgical services of a military hospital is nowhere better exemplified than in the study and treatment of patients suffering from surgical shock. The phenomena involved in the individual case are found in the province of the internist and the procedure necessary in treatment may well be applied by him. In the words of the medical research committee inquiring into surgical shock and allied conditions, "It is virtually a medical procedure, thereby saving the surgical personnel for major surgical work in times of stress."

In a brief account of the resuscitation work of the medical service of Base Hospital No. 31 no attempt will be made to review the various theories of the cause of shock, the factors concerned, the phenomena exhibited, nor detailed descriptions of methods of transfusion advised by the Medical Research Committee. The reader may obtain detailed information concerning this whole subject by consulting findings of the Special Investigation Committee on Surgical Shock and Allied Conditions, reports one to seven; "A Report upon Transfusion of Blood for the Recently Injured in the United States Army," published by the medical division of the American Red Cross Society in France, May, 1918; also an article, "Traumatic Shock and Hemorrhage," War Medicine, December, 1918.

For instruction in resuscitation work three officers from the medical service were ordered to the Central Medical Department Laboratories at Dijon during the summer and autumn of 1918. Capt. C. C. Wolferth was the first to attend the school. Soon afterwards Capt. H. B. Doust received similar orders. Upon his return to Base Hospital No. 31 each officer outlined the course received and demonstrated the transfusion apparatus. In July, 1918, Capt. Doust's team, consisting of himself, two nurses and two orderlies, was ordered to Evacuation Hospital No. 7, where the team was engaged in caring for strictly medical cases, no resuscitation work being done. In the meantime the resuscitation work at Base Hospital No. 31 was done by Capt. Wolferth.

Early in September 1918, the third officer, Capt. Sweet, received orders to proceed to Dijon for instruction in resuscitation. The course given by Major W. B. Cannon, M. D., Harvard University, covered three days' intensive work, consisting of lectures, laboratory demonstrations and individual work by the officers receiving instructions. The lectures dealt with theories concerning the causes of shock, the facts and phenomena, methods

Official History, U. S. A. Base Hospital, Number Thirty-one

of combating shock, details of transfusion by the sodium citrate method and the grouping of donors and recipients. Laboratory demonstrations on dogs and cats exemplified some of the phenomena of shock accompanying injury and hemorrhage, as well as the results of infusion of gum salt solution and blood transfusion. Officers working singly and in groups were instructed in the details of transfusion and in the technic of grouping donors and recipients.

It may be worth while to mention three points which were emphasized throughout the course:

[1.] In the state of shock, low blood pressure is the central feature and most capable of giving an indication of the degree of shock. Aside from an actual loss of blood by hemorrhage, there is a condition of exaemia or loss of blood from circulation because of stagnation in the capillaries. Cold has an augmenting effect in causing stagnation and this influence should be combated by (a) care in exposing patients, (b) intelligent use of blankets and (c) by restoring heat by application of external measures as well as by the free use of hot drinks.

[2.] Along with the fall of blood pressure there is a change in the blood toward acidosis. Above 80 degrees blood pressure there is generally no change in alkaline content. Between 80 and 70 degrees there is a "critical level". Below 70 degrees there is a sharp falling off of sodium bicarbonate content due to lack of oxygen supply and subsequent production of sarco-lactic acid. If there is insufficient supply of oxygen for any considerable length of time there is a progressive destruction of the medulla and there comes a time at about 40 degrees when even infusion and blood transfusion have only temporary effect in raising blood pressure. No drugs have any permanent effects. Blood pressure must be raised and maintained above the "critical level" in order to avoid the destruction of medullary tissues. This may be done by infusion of the gum salt solution of Bayliss, but more effectively by blood transfusion.

[3.] Patients in shock show a sensitiveness towards anesthetics. Without any other activity the administration of an anesthetic may cause a drop in blood pressure of between 30 degrees and 40 degrees. Added to trauma and shock already existing the anesthetic may add the critical load which may determine the outcome. This severe drop in blood pressure may be avoided by the use of morphia followed by nitrous oxide and oxygen in proportion of three to one. Should a patient in shock demand immediate operation, the pressure may be maintained by infusion or transfusion started with and continued throughout the operation.

As outlined by the Division of Laboratories, A. E. F., the duties of resuscitation officers are as follows:

Official History, U. S. A. Base Hospital, Number Thirty-one

To provide continually an adequate number of donors who have been properly grouped.

To group all donors and recipients.

To be available for consultation with any of the hospital staff concerning transfusion.

To perform or direct personally all transfusions.

To supervise all transfusion records in order to add information on the subject to clinical and laboratory data.

To instruct other men assigned to transfusion work.

To do such other clinical work as the surgeon in charge may direct.

In the main this outline was followed in the shock work in Base Hospital No. 31, although slight departures were made necessary because it seemed impracticable to devote the entire time of a member of the medical service personnel to this work. During the period when the services of a resuscitation officer were required Captain Wolferth was Chief of Medical Service and Capt. Sweet was in charge of a medical building, consequently the work was divided between them, the greater number of transfusions being done by Capt. Sweet. While many cases requiring shock treatment were treated in the hospital building in which the necessity arose, the shock ward proper was located in the Casino near the operating rooms. This ward had a capacity of about fifty beds, was easily warmed and equipped with an ample supply of blankets, hot water bottles and appliances for application of electric heat.

Those cases which upon admission to the hospital were in need of shock treatment were immediately taken to this ward, where they received necessary treatment. Cases needing operation were rolled easily into the operating room, followed through the operation and then returned to the shock ward to continue under observation for shock treatment. Several cases were transfused during the operation and many immediately following operation, particularly those cases with marked secondary hemorrhage and cases requiring heavy amputations for gas gangrene. When cases were considered beyond the need of special shock treatment and able to bear transportation, they were taken to the wards to which they properly belonged, all precautions being taken to prevent chilling and fatigue. Occasions arose in the various hospital buildings when some secondary hemorrhage or sepsis required the services of the resuscitation officer. Whenever possible the appropriate treatment was applied without moving the patient, thus conserving his resisting powers, a very important consideration in every case involving shock.

Ward "X" for convalescent patients at all times furnished sufficient material for selection of blood donors. Slightly gassed cases and cases convalescing from minor medical and surgical conditions were the material of choice. When the extent and significance of the procedure were explained hearty co-operation was almost invariably found, the service being entirely voluntary. Many of the boys were eager to act as donors, following the transfusion with intense interest and subsequently showing almost pathetic concern for the progress of the recipient. Several boys volunteered as donors the second time, and one who remained in Ward "X"

Official History, U. S. A. Base Hospital, Number Thirty-one

over a period of several weeks gave himself for transfusion three times. To many donors an official note of commendation was given by the commanding officer of the hospital. This was highly prized, and in one instance upon the return of the donor to his organization the note of commendation was officially read before the whole battalion by its commanding officer.

At all times a list of donors properly grouped was kept on file with the transfusion set and an effort was made at least to keep one group four donor within easy call of the Ward "X" office, in order to avoid delay in case emergency should arise. Squads of from six to twelve robust boys were sent for grouping every two or three days in order to keep on hand a sufficient number of group fours. Most frequently group fours were used, thus saving the time which would be necessary in determining the group to which the recipient belonged. When there were no group fours in waiting the recipient was typed and a donor of the corresponding group was used. In general the grouping was done by the staff of the hospital laboratory, though from time to time emergency demanded that the work be done by the resuscitation officers. At all times the resuscitation officers were available for consultation concerning the shock cases and transfusion. This service was freely employed and operated to the good of both medical and surgical services. All transfusions were done by the resuscitation officers or by their advice and direction, although other officers became perfectly familiar with the simple technic and did transfusion well.

The care of the transfusion apparatus was under the direct supervision of the transfusion officers. This was shown to be necessary because the success of transfusion depends to a large extent upon the condition of the apparatus, particularly the needles. A needle dull or improperly sharpened increases the difficulty of getting into the vein, and one which has a roughened bore favors clotting as the donor's blood is drawn. The officer sharpened his needles himself before using and kept them in alcohol, ready for use. The greatest difficulty encountered was an occasional clotting of blood as it was drawn from the donor, in at least three cases coagulation taking place before reaching the receiving bottle. It is assumed that the donor's coagulating time was unusually short. In a few instances coagulation took place in the bottle due to the fact that the sodium citrate solution was not sufficiently strong. Upon use of a stronger solution this difficulty did not occur. In only a small percentage of cases was it necessary to cut down on the vein of the recipient, and then only when the patient's veins were in a state of collapse due to low pressure and ex-sanguination. It was never necessary to cut down on the vein of the donor, although hemorrhage into the tissues about the needle occasionally necessitated use of a second vein.

The total number of transfusions made was about 50. Of these, five were in medical cases, the remainder surgical. Of the five medical cases three were pneumonias in desperate condition. They were temporarily

Official History, U. S. A. Base Hospital, Number Thirty-one

improved but ultimately died. The remaining two were typhoids who were in desperate condition because of intestinal hemorrhage. Number one was temporarily improved, no further hemorrhage taking place, but ultimately died because of other complications and toxæmia. Number two, during his typhoid, had pneumonia, empyema with drainage, double otitis media and severe hemorrhage. Transfusion caused a decided change in his condition, without further hemorrhage and he later was able to be evacuated. It is believed that transfusion saved his life.

The surgical cases which were transfused may be classified in two main groups, viz.: first, those suffering from shock due to wounds and secondary hemorrhage; second, those in shock accompanying toxæmia of infection. Cases falling in group one require little comment; the beneficial results of transfusion were remarkable. The cases of group two may be classified in three classes: (a) those suffering from severe infected wounds; (b) those having gas gangrene and (c) those having wounds of any type or infection accompanied by streptococcus septicaemia. Class (a) cases made marked improvement with repeated transfusions. Class (b) cases showed less marked improvement; repeated transfusions were more frequently necessary and the ultimate outcome was more often in doubt. Class (c) cases showed no permanent improvement, although at times a temporary benefit was observed.

The work of the resuscitation branch of the medical service at times seemed discouraging because so frequently its aid was invoked as last resort. However, on the whole the work proved fascinating. The results showed the procedures to be eminently worth while, and the closer co-operation of internists and surgeons proved to be of mutual advantage.

EMERGENCY ANESTHESIA

Capt. Colin McF. Reed, M. C., U. S. A.

The principles of anesthesia, always interpreted in a most conservative manner by the medical profession and lay public in America, has undergone a forced evolution as a result of the successful practices of anesthetists engaged in emergency war work in American and French evacuation hospitals. Methods seldom, if ever, used by the average American practitioner have been used continually with thorough confidence, and with a greater degree of satisfaction than is found in the ordinary practice of anesthesia in civilian work. Emergent pressure has furnished ample proof that all medical men are not by the nature of their fundamental training anesthetists. Likewise it has proven that the nurse, or even corps man or attendant, can become fully as proficient in anesthesia as the graduate physician, providing they have been properly schooled in the various methods to be used.

From personal observation in the more than 2000 cases in which I have been the anesthetist as a member of Surgical Team No. 16, and in the great number of other operations witnessed, it has not been difficult to allow my previous personal convictions to undergo a thorough metamorphosis. This is true, particularly on the use of chloroform. Soon after our team was ordered to active service with the French we visited a French Hospital at Beauvais. On entering the operating room we became aware of the presence of chloroform. A case was being operated with this anesthesia in use. As we watched we saw chloroform poured, almost freely, over the patient's face. It was being used much more freely than Americans ever had seen it used. For a moment the practice seemed alarming. Inquiry brought the answer that chloroform was being used entirely and that fatalities under its immediate influence were very rare. Thousands of cases had been handled since the last so-called "anesthesia accident".

"We use chloroform for many reasons", we were told. "First of all we use it because we cannot take time for the old fashioned way of etherization. There are too many others waiting for attention. Secondly, we do not have enough nurses to watch our patients while coming out. With chloroform, they quickly go under and when the application has stopped they are quick to come out. They are not nearly so sick, and they need not nearly so much nursing attention."

After having watched a great number of operations in which this method was used we decided on the use of chloroform for our team, and the results obtained were entirely satisfactory. Accidents were few, and

in the total number of cases we operated there was not a single death due to anesthesia. Our first cases presented their problems, however. Frequently we were aware of some difficulty in breathing and in a few cases breathing stopped. Resuscitation was rapid, however, and no damage was done. At first it was thought the grade of chloroform was responsible. This contention was disproved when we used U. S. P. chloroform with the same results.

Observations during this period of more or less difficulty proved that our difficulties had been caused by too great a concentration of chloroform rather than its use over a long period. The accidental application of a few extra drops proved troublesome. As soon as the practice became standardized all such irregularities were removed, and chloroform became the anesthetic of choice in all cases. Even cases where conditions of shock, with resultant low blood pressure due to hemorrhage or trauma, responded well under chloroform anesthesia. Many thoracotomies for removal of F. B. of lung, for lacerated diaphragm and F. B. in liver were performed with the best of results. As an example of what could be done: There was one patient in great shock, with blood pressure seventy on whom the original operation was a high hip amputation. He rallied nicely and the following day was returned from the ward for amputation of an arm at the shoulder. On the third day an eye was removed and all the results were entirely satisfactory. Some five or six days later I walked through one of the wards to make an examination. I felt a tug at my coat and, turning, saw this same fellow in surprisingly good condition despite the seemingly impossible combination of shocks through which he had been forced. His simple expression, "They sure trimmed me", told the story of how that boy felt. This is one of the many cases operated, in great shock, with the quick chloroform method.

Ether was not entirely discarded. The French used it occasionally, but their method was much different. An appliance known as "Appareil pour anesthésie a l' ether d'Ombradma" controlled etherization by mechanical means, with great success. A large metallic ball, with a bag attached, was the principal part of the apparatus. By means of a series of stop cocks on this metallic ball the quantity of ether given a patient was governed by the air intake. This method of etherization was used only on cases of exceptionally low physical condition caused by gas infection or highly suppurative wounds.

Ethyl-Chloride in its abstract form was used not infrequently. Many cases were operated within half a minute after the patient had been adjusted on the table. Tubes of ethyl-chloride, about six inches long, were always handy. One of these was broken into a gause, which had been placed inside a suitable cap. A single gasp after the cap had been slapped over the patient's head rendered him ready for operation.

Official History, U. S. A. Base Hospital, Number Thirty-one

It was not until our team joined an American Evacuation Hospital that the DePauge's method was used, and there its success was not really pronounced, because our surgeons would not operate a case while there was any muscular tension. The DePauge's method as we used it at the evacuation hospital consisted of this mixture, always prepared immediately before application: 1 cc. chloroform; 23 cc. ether and 5cc. ethyl-chloride. A dry piece of flannel was placed over the face, above which was placed another piece of flannel saturated with the solution. A rubber bag, completely covering the face, except for a small hole at the top, resembled the old style "closed method" of etherization. This method was dubbed the "Raus mit 'em" anesthetic by other teams, because properly trained enlisted men or nurses went from table to table, and prepared cases for surgeons who were ready with minimum of delay.

It may be urged that all this seemingly radical method is satisfactory for army work but can never be applied in civilian practice. Much of it will not be necessary in civilian practice. The speedy methods will be desirable in emergency. The great lesson to be learned from war anesthesia, however, is that there is not as much reason for fear of the anesthetic, providing it is administered by one who truly understands the method.

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Official History, U. S. A. Base Hospital, Number Thirty-one

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Official History, U. S. A. Base Hospital, Number Thirty-one

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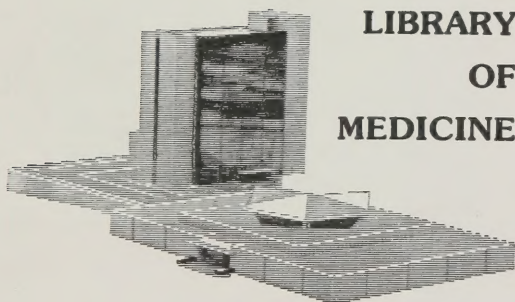
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